

**FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.**

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70 and 71, Bishopsgate-street Within, London, E.C., Nov. 10, 1866.



## Original Correspondence.

## PRUSSIA AND ENGLAND.

SIR.—The interest, mixed with astonishment, exhibited in England at the success of Prussia in the extraordinary campaign of this year, may render the following remarks of a British subject, some years resident in Prussia, worth perusal.

The principles of Political Economy prevalent in England and Prussia for several years back have certainly been very different—at least the favourite *laissez faire* doctrine has not been the predominant feature in Prussian policy. Prussia has learned many good things from our great constitution and its practical working; she has also been able to avoid many of the errors in administration into which we have fallen; and many of her most patriotic sons admit that she has still much good to learn from England. Let us, on the other hand, at least condescend to admit we have already learned something from Prussia, and are ready and willing to learn more.

Out of the many facts and statements which might be adduced, the following selections will serve to make intelligible to most thinking minds the solid foundation of Prussia's well-earned success, and show, at the same time, how many of the vexatious questions of the day which agitate our old constitution, under the trammels of old laws, habits, and customs, have been boldly and practically solved by Prussia.

1.—That every man, woman, and child in Prussia is educated is generally known. Without stopping to compare this state of education with that of other continental nations, and the consequences thereof, let us reflect what a sad contrast it affords to the ignorance of a large portion of the agricultural, mining, and other labouring population of many parts of England. Whilst in Ireland we admitted long ago the evil, and applied the remedy of a national school system, yet we have scarcely the courage to maintain it against the cabals of parents and parsons.

2.—Religious toleration is in Prussia a fact, not a mere boasted theory, practically evaded or repudiated on convenient occasions. Here religious distinctions do not trouble the face of society, nor enter into men's minds in matters of business. In a Protestant kingdom Roman Catholic churches and congregations receive their due quota of support from the State. Glebes are provided or retained for the priests, and Roman Catholic archbishops and bishops enjoy their high-sounding titles, and are received at Court and the royal table without any fears that Papacy would become rampant, and either convert the Protestants or rule the State.

3.—That every self-supporting person, even labourers and servants, pay income tax in Prussia in proportion to their income is, perhaps, little known in England; yet it works well here. No outcry and agitation against the principle. That it does not diminish the love of Fatherland, drive the people to emigration, or reduce the population, can be easily proved by the well-kept statistics.

4.—That there is no shooting of landlords, nor agrarian disturbances, as in Ireland; that land retains a very high purchase value for agricultural purposes; and yet that there are very few police in the whole country, and no repressive system in these matters requisite, are facts that, as regards the so-called "Irish difficulty," may well court the investigation of a special commission to discover the magic secret of statesmanship in the land question.

5.—The military service, and capabilities of the people thereof, with the concomitant arrangements of finance, commissariat, field hospital, field telegraph, &c., have been so clearly explained in the English press, as to require here only to be mentioned for the purpose of awakening attention to the contrast with our own, in reference to efficiency and economy.

6.—As regards trade and commerce, the strenuous exertions Prussia made in establishing and maintaining the Zollverein—her steady and gradual progress towards free trade, under all the difficulties of working with a great number of petty States, are now fully acknowledged, and, doubtless, served to enlarge and prepare the views of her statesmen, and to train her people for the occurrences and results of this eventful year.

7.—Coal and iron—the material sources of England's wealth—are at least equally as good, and much more abundant, in Prussia (even before her increase of territory) than in Great Britain and Ireland; besides which they are more available under her well-regulated laws, and the great reforms she has made in the last few years. The combination, or "strikes" of men, and the "lock-outs" of masters, which so seriously threaten and jeopardise English industry, are almost unknown here, and impracticable under present legislation. The progress which Prussia has made in the development of her mineral wealth for the last few years is enormous; and the statesman who saw his way to the union of North Germany, knows how to value the lever which this mineral wealth, when further developed, by increased facilities of communication, and confidence for the investment of capital, places in the hands of Government for raising the power of his country.

8.—The Railways of Prussia have played a great part, both in peace and war. Like other nations, she learned much of her A B C in railway practice from England. But now, in railway policy, Legislature, finance, and practice, the tutor may learn many useful lessons from the pupil. Railways in Prussia carry passengers, on the whole, with much more comfort and accommodation than in Great Britain and Ireland, for about half the price—carry minerals (at least coals) rather cheaper, and goods, on the average, at least as cheap; yet British shareholders may be surprised to hear that these railways, though costing for works and railway stock nearly as much as English lines, pay nevertheless generally good dividends—in some cases not merely 6 or 7 per cent., but 17, 20, and up to 22 per cent. upon the share capital. More extraordinary still, these dividends are invariably paid out of the net profits, after paying off the interest and sinking fund on borrowed monies—the so-called debenture debts in England. How happy, from all accounts one reads in the *Times*, would the debenture holders of the London, Chatham, and Dover be with such results. (It is just a suitable occasion to try the same system—if fairly worked it must succeed.) Yet the obligation holders in Prussia have not the protection so much relied on in England—that the share capital should greatly exceed the amount of loan—*au contraire*, the loan, which has, of course, the priority, often exceeds the share capital; is, indeed, in some instances double and treble the amount. The fact is Prussia, with many other nations, began her railway policy under the conviction that the iron would be the future highway of the country, and that, contrary to English notions of political economy, it was a special bounden duty of the Executive Government to watch over, guide, or direct them, more or less, whether executed at the cost or the State itself or by private companies. Prussia certainly did not give railway companies the doubtful and extravagantly expensive benefit of private legislation by both Houses of Parliament, but passed general laws and placed their administration in the hands of the Executive. Nor, on the other hand, did she leave the public to the tender mercies of a joint-stock company system, without adequate governmental control. The result is, railways in Prussia have been executed for the actual cost of the works, without the erroneously expensive preliminary and financing expenses so recklessly incurred by, or rather forced on, companies in Great Britain and Ireland; and the question very fairly arises whether many of the sins and offences so freely attributed to British railway companies should not rather be charged to the erroneous policy system and practices which begat them. One thing, at least, seems clear, that it would be useful impartially to investigate the system of legislative, financing, Government aid and control of railways, which produces results so beneficial to all concerned, and so much at variance with our own.

9.—In Post Office affairs, much as we have advanced before the whole world in our penny postage, we can still learn something from Prussia. Every passenger train has a travelling Post Office carriage (free of cost), which takes not only letters to the last minute of the train starting, but conveys an immense parcel delivery, admirably arranged under the Post Office department, wonderfully cheap, and extending by Post Office omnibuses or carriages throughout the whole kingdom. In general a striking feature in all departments of State and business in Prussia is the excellent system of organisation and administration exhibited—a certain amount of bureaucracy, perhaps inseparable from a very exact system, at first strikes the stranger, and especially the Englishman, but continued experience of the

practical working out of details removes the impression; and, though officials, high and low, are more numerous, and worse paid, than with us, yet their high state of education, their talent for administration, and, above all, the *enlightened liberality* and readiness to adopt improvements exhibited by the heads of departments, afford the most solid grounds for confidence in the success of their undertakings.

Rhine Province, Nov. 5.

A CONTINENTAL SUBSCRIBER.

## ALGERIA—No. I.

SIR.—Far away to the south, across the Channel, across France across the Mediterranean, we come to the coast of Africa. It was on a Sunday evening in February; there was a great deal more tumble in that tideless sea than was pleasant to voyagers, and the waves breaking against the wall that forms the small but temporary harbour of Philippeville rose in flashes of water scores of feet into the air, forming quite a grand spectacle from the shore. It is my intention to give a rough sketch of the province of Constantine, taking for this purpose a transverse section from Stora, the sea port of Philippeville, southward through the capital (Constantine), and over the Atlas Mountains, as far as the Great Desert, descending cursorily as we go along on the physical geography and geology of the district, always bearing in mind that everything is given from a mining point of view, and being by no means bound strictly to the centre line of our narrative. The first glimpse of the country showed me that the shores, cliffs, headlands, and mountains in view were principally of clay-slate; and I was rather proud to find myself in a formation with which I was acquainted, and upon which I had been accustomed to generalise—in fact, I might say, I was at home in a minute; and as I ranged along the cliffs and escarpments of broken rock, marking its stratification and its veins, the principal of which were of that quartzose kind so much seen at Dolgely, in North Wales, I often said to my companion, "If we look sharply into this white stone, I should not be surprised if we find a piece of gold by-and-bye." However, with reference to that we were doomed to disappointment.

The mountains on this coast rise up from 200 or 300 to 1500 feet in places along the sea-board, the surface covered with cork oak, and other vegetation strange to European eyes, and the sites affording splendid views both of sea and land. I noticed it was in February when we arrived in French Africa, but this did not prevent our getting strawberries, grown in the open air, to our dessert, and when we walked up the long street that traverses Philippeville from north to south, and passed out through the south gate, we found ourselves surrounded by gardens of lemon and orange trees in full bearing, giving a cast of great beauty to the landscape. The climate was delicious, and we found no difficulty in wearing the clothes we were accustomed to wear in England. The region of mountainous ground near the sea is called the Lower Atlas, and, like the Great Atlas that bounds the Desert 100 miles further inland, has evidently been raised, and probably is now rising, out of the bottom of the Mediterranean Sea. I say this because I noticed that the fossilised shells in the rock of the mountains of that country, the same as those of Snowdon in our own, were of the same species as those now inhabiting the seas at the foot of those respective mountain ranges. In the schistose rock along the sea side, and by the margin of the River Safsaf, which falls into the sea a short distance to the west of Philippeville, I found large bands of good iron ore, some of them from 1 to 2 feet in thickness, containing some 50 per cent. of iron; and if this formation of iron ore had been in this country I have no doubt but that it could be worked to considerable profit. These bands were inclined to the north some 40° from horizontal, and appeared to hold their lines with considerable regularity.

Philippeville, was the Rusicada of the Romans, the "Song of the Grasshopper," and some old Roman mining works are found upon the range of those iron beds, while in the town itself the Roman cisterns for holding the water supply are as good and firm now as when they were used by that enterprising and skilful people; in fact, some of those works are now used to supply the modern town. The extent of the ancient amphitheatre testifies to the greatness and luxury of the ancient city, of which the present town is only an insignificant representation. The quantity and preservation of the sculpture is considerable, and useful on two accounts; on the first, because it shows the marvellous ability of those famous old workers in stone, who have left their work behind them as a wonder for all time; and, on the second, because it shows that the country possesses stores of treasure of almost every description, not excepting even marble, of which the old quarries at Filfila, from which those sculptures were obtained, still exist, holding seven or eight descriptions of valuable marble, and of which more in another paper. CORNISH MINER.

## BLASTING BY ELECTRICITY.

SIR.—In last week's Journal appears a description of an electric fuse, and a recommendation of a magnetic machine, founded on suppositions which are utterly untrue. I beg of you, therefore, to insert the following explanations:—Your correspondent says that the frictional electric machine will be affected even by the changes of the weather. I oppose to this that the machine can be very easily fixed in an air-tight case, that the use of India-rubber for the insulators and the disc totally prevents the condensation of damp thereupon, and that such a machine is not at all affected by damp or changes of weather. One of my machines was during a fortnight in the 60 ft. level of Devon Great Consols Copper Mine, without losing the least of its efficiency. The little damp which is condensed by a lowering of the temperature is absorbed by the chloride of calcium, a very cheap substance, twopennyworth of which will be sufficient for several years. Having done with the influence of damp, we will proceed to the authority of Messrs. Wheatstone and Dr. Abel. With regard to this, I have to say that these gentlemen will certainly not pretend that something which they thought impossible could never be done. I myself did not think the frictional electric machine suitable for blasting underground, and have tried a galvanic battery and magnetic machine. Whoever has been connected with the working in a mine or a tunnel will admit that the electric machine must be allowed to fall sometimes, or be upset, and treated in rather a rough way; I could, therefore, not use the galvanic battery, and tried the magnetic machine. The machine I used consisted of 24 magnets, fixed on two discs; 24 induction coils, containing about 80,000 ft. of wire, were rotating between the magnets. This machine ignited a fuse at a distance of 10 English miles; but, notwithstanding this enormous power, it was impossible to dispense with the covering of the wires inside the hole for blasting in rock. I was, therefore, obliged to abandon this method, and turn to the frictional electric machine. The spark of the Leyden jar, or any other condenser, is sufficiently insulated by the semi-conductors. For instance, if two uncovered wires are submerged into the water, and their ends brought almost close together, the spark will be seen passing from one end to the other through the water when the condenser is discharged by these wires. This fact gives the frictional electric machine such a superiority over all the other machines, that I thought no expense too great if it would probably lead to the discovery of a frictional machine which could be trusted in the hands of a common workman. The machine which I bring before the public is the result of much experience. I have tried it myself in the construction of the Hattingen and the Möhringen tunnels (railway from Singen to Donaueschingen, Grand Duchy of Baden), till I was convinced that no inconvenience could occur. Experience has convinced me that it is of no good to oblige the miner to take care of the insulation of the wires by giving him a small machine. He must have sufficient electricity at his disposal to be allowed to waste a little of it. I may add that one thing may be cheaper than another thing as to first cost, yet it will turn out to be much dearer in use. The 24. 2s. magnetic machine, with its 24. submarine cable, is only a little cheaper than my 54. frictional machine (for I have now made arrangements to supply them at that price), with its 3s. worth of iron wire; but in a quarry or a coal mine, where uncovered iron wire can be used inside the holes for blasting with my fuses and my powerful machine, it would be discovered before a fortnight had elapsed that it is much cheaper to spend 54. 3s. for machine and wire, and one-tenth of a penny for every blast, instead of 44. 2s. for the magnetic machine and submarine cable and 1d. to 2d. for every blast. Your correspondent, "J. R.," will oblige by stating whether he has really ignited one of the cheap fuses by a magnetic machine, and explain how he made the spark pass from one wire to

the other in the gun-cotton fuse, as the 24. 2s. or 34. 3s. magnetic machine will certainly not produce a current which leaps over a distance of even 1-100 of an inch. F. ABBEG.

## BLASTING BY ELECTRICITY.

SIR.—I promised in my last to describe the magneto machine applicable to blasting in mines, but before doing so permit me to remark that, in describing the mode of making the fuse, I omitted to mention that in order to cause the explosive compound placed in the cup to ignite, it is necessary that the two wires should be connected with a morsel of black lead, as the fuse would not otherwise be thoroughly effective. The magneto machine which I think best suited to the purpose is a slight modification of the magnetic exploder devised by Wheatstone—in fact, it may be regarded as a Wheatstone's exploder roughly made. It will ignite at one time from two to twenty-five fuses. It consists of six small magnets, to the poles of which are fixed soft iron bars, surrounded by coils of insulated wire. The coils of all the magnets are united together, so as to form with the external wire and the earth a single circuit. An axis carries six soft iron armatures in succession before each of the coils. By this arrangement two advantages are gained—all the magnets simultaneously charge the wire, and produce the effect of a single magnet, of more than six times the dimensions; and, at the same time, six shocks or currents are generated during a single revolution of the axis, so that when aided by a multiplying motion applied to the axis a very rapid succession of powerful currents is produced. Another peculiarity of this apparatus is that the coils are stationary, and the soft iron armatures alone are in motion; by this disposition the circuit during the action of the machine is unbroken.

Comparing the relative advantages of frictional electricity and magneto electricity, I think that the greater cheapness of the machine of the latter description will always give it the advantage, apart from the consideration that magneto machines are much less liable to get out of order. An outlay of 64. or 84. for an electrical machine is one which in comparatively few mines would be sanctioned by the shareholders, especially when it is considered that the best safety-fuse can now be purchased for about 6d. a coil, and that the accidents in blasting, which, even in the aggregate, are really very rare, occur not, as a rule, after the hole is ready for firing, but through the ignition of the charge in tamping. It is well known by practical men that the advantages of electric blasting are more apparent than real, and considering the comparative smallness of the ends in mines, even this apparent advantage is scarcely appreciable. The smallness of the ends also renders the ignition of several charges simultaneously of very small importance, and a case would scarcely occur where more than three holes could be advantageously fired at once. In such an extraordinary case the object could be quite as safely and conveniently accomplished with the common safety-fuse. The additional length required to bring the three ends together, and ignite them simultaneously, would cost less than a single electric fuse, even of the rough and cheap kind I have described, and the trouble and inconvenience of the machine would be avoided.

The time wasted in blasting by electricity would be enormous, unless each part of men be provided with a separate machine, as in many instances the miner would, practically speaking, have to go two or three miles to fetch a light whenever he required to fire a hole—a difficulty scarcely necessary intentionally to create. For quarries where there is a good face to work upon the use of electric blasting would undoubtedly be an enormous advantage, and if Mr. Abegg confines himself to those he may make his invention highly profitable to himself and useful to those adopting it, for although I am myself favourable to the use of the magneto machine, I am certainly of opinion that Mr. Abegg's is the best frictional machine for blasting purposes that has yet been constructed, and that it acts most efficiently. Where, as in the case of quarries, a single machine is ample for the entire works a few pounds difference in first cost is not of much consequence. Let Mr. Abegg confine himself to quarries, and I am sure he will succeed—but not with mines. J. R.

Nov. 7.

## IMPROVEMENT IN LEAD SMELTING.

SIR.—Knowing the readiness with which anything relating to the mining interest is inserted in your valuable Journal, I am induced to draw the attention of your numerous readers to an improvement in lead smelting. What I refer to is a new ore-hearth, invented by Mr. Forster, foreman at the smelting-works of the Leadhills Mining Company, Leadhills, N.B. I do not feel myself at liberty to enter into a detailed description of this hearth, but may only at present add that it is a modification of the Scotch hearth. It has now been in operation for five months, during which time a great many experiments have been made, evincing in each case the decided superiority of this hearth over the old ones:—

1.—It can be worked continuously without heating. This is of very great consequence, as every lead smelter knows that at least one hour is always taken up in heating the hearth and melting the brouse. Now, in this case it only requires to be done once during the week, instead of six times as formerly, and a great saving is thereby effected both in wages and fuel.

2.—No peats are used or required in this hearth.

3.—This hearth has yielded 4 per cent. more lead than the old hearths out of similar ore.

4.—The production of lead at any smelt-mill may be increased threefold, without any extra expense in the erection of new buildings, but simply by the introduction of this hearth, which smelts as much lead per week as three of the ordinary hearths do. In the case of a new smelt-mill being erected, this quality is of very great consequence, as not only would a much smaller building be required, but the blast apparatus would also be put up at a less cost than usual, inasmuch as less power would be required to supply one, instead of three, hearths with air. The following account will show the expense of smelting a ton of lead by the two hearths, as proved by experiments made at the smelting-works of the above company:—

BY THE SCOTCH HEARTH.		BY FORSTER'S HEARTH.	
Wages.....	7s. 6d.	Wages.....	6s. 0½d.
Coals, 2 cwt., at 8½d.....	1 5	Coals, 1½ cwt., at 8½d.....	0 10½
Lime, ¼ cwt., at 10d.....	0 5	Lime, ¼ cwt., at 10d.....	0 5
Peat, two loads, at 5d.....	0 10	Peat, none.....	0 0
Total.....	10s. 2d.	Total.....	7s. 5d.

Suppose a smelt-mill produced 2000 tons of lead per annum, there would result in wages and fuel alone a clear saving of 2754. yearly.

Nov. 7.

A MINING ENGINEER.

## ON SLATE, AND SLATE QUARRIES.

SIR.—I have noticed many errors in various letters relating to slate in the Journal for some time past; but either the non-importance of the correction or manifest want of practical knowledge of the correspondent was too obvious to warrant my trespassing on your space to set them right. The mention of slate in Mr. N. Ennor's letter in last week's Journal seems, however, to claim some notice, from the authority of the writer on geological matters, and the mixture of much that is true and useful, with mistakes as to facts and inferences. All that he says as to the favourable position and future prospects of slate quarrying is accurate, and deserves attention; and his recommendation to avoid incompetent management, and leave all in the hands of skilled practical quarrymen, planning judicious work for three to five years forward, free from interference by meddling ignorant directors, is eminently sound and sagacious. Common sense should tell us this is the only way to make slate quarries return profits; and well would it be for the unfortunate shareholders in ill-managed companies were this truth universally acted upon. But he is strangely at sea in all he says as to the nature of roofing slate. Not lime, but oxide of iron, mixing with the clay makes slate rust and perish. Nor does lime give slate lamination. The best cleaving slate is a mixture, in proper proportions, of alumina and silica, with a very small percentage of other matters. Such slate is tough, strong, and lasting, whilst clay imbued with oxide of iron makes slate rust and crumble when exposed to weather. Again, every man who knows slate rock from bastard iron, or should be, aware that there is not a black slate in the Festiniog veins. These slates are uniformly blue, of the finest, strongest metal, and have carried first medals in all the exhibitions here and abroad as the best roofing slate. And as to slating, it is true that these slates, being made and sold by count, are often split too thin for strength or endurance. But this is the fault of the

maker, wronging the very excellence of his metal, which carries the split as true and fine as a card. When of the proper substance, weighing about 4 lbs. each for 20 in. x 10 in., and so on, and properly put on, the slates make a roof of first-rate endurance. Mr. Ennor needs some lessons in slating. When a slate works loose and breaks, the fault nine times out of ten is in the bad battens, the nails, or the slater. If properly fastened with two good copper or zinc nails of proper length to each shoulder no wind should move good slates, and the nail will be as fast in its hole, if properly made, for years as the day it was put in. The roofs of the Welsh cottages he mentions, kept down by large stones or flags, are those in which very inferior slate is used, and the fixing and battening is so bad that the slate was never properly put on. Before making his journey to Wales Mr. Ennor should get from Mr. E. Wilson a shilling pamphlet on "Slate, Slate Quarries, and Slate Quarry Companies," as a useful *vade mecum*. In visiting the Festiniog quarries, by due search he may find, here and there, slates that have lain on the bank for twenty years, and more than half-buried in earth and wet moss; and, drawing them out, he will see that the under edges are as sharp as the day they were quarried. Had they been what he calls them black slate (now, happily, so seldom seen), they would have been a heap of broken dust before the end of the second winter.

London, Nov. 5. — A MAN OF EXPERIENCE.

THE NORTH STAFFORD STEEL, IRON, AND COAL COMPANY, BURSLEM (LIMITED).

SIR,—The notice respecting the proceedings of this company, which appeared in last week's Journal, not being founded on facts leads to a wrong conclusion. An extraordinary general meeting of the members was held at the Guildhall Hotel, on Tuesday, Oct. 23, for the purpose of confirming a resolution passed at a previous meeting for voluntarily winding-up, the desirability of which was at this meeting fully discussed, after which the meeting declared against the confirmation, not only upon a show of hands, but also by a large majority of votes upon a poll being taken. The business of the company will, therefore, be proceeded with, and the question at issue with Lord Camoys brought to a hearing as early as possible, in order to secure a speedy development of the properties.

W. H. PALMER, Sec.

Gresham-street, Old Jewry, Nov. 7.

PEAT AS A FUEL FOR LOCOMOTIVES, &c.

SIR,—A most satisfactory report has just reached England, from Canada, announcing the gratifying intelligence of a successful trial of peat as a fuel on railway locomotives on the line from Kingston to Montreal, a distance of 177 miles, which was run at an average rate of 25½ miles per hour, including stoppages, consuming barely 3½ tons of peat fuel, the cost of which may be calculated at 27. 9s., or 14s. per ton; against which may fairly be placed, if coal used, 62s., or 40s. per ton for 3 tons; if wood used, 62. 3s. 6d., or 28s. per cord for 4 1/10ths cords, showing a great and decided advantage in the relative comparison of fuel costs in the favour of peat. Another advantage, also, was gained in time saved (52 minutes) on the journey with peat fuel, and a still further advantage would have resulted had the peat been manufactured with only 5 per cent. of water in it instead of having 20 per cent. of water, which the trial peat was estimated to contain. The real working and manipulation of peat is coming fast to sound principles of action, and practice will soon develop that it is worthy the attention and best interests of capitalists and men of business to bring the great peat bogs of the United Kingdom into commercial working quickly.

W. AUSTIN, C.E.

Dorset-place, Wellington-road, Holloway, Nov. 7.

THE CHINA-CLAY TRADE OF CORNWALL—No. I.

THE ROCHE MINING DISTRICT.

SIR,—Absence from home has prevented my writing and laying before your readers the particulars of the CLAY WORKS in this district until the present time. I will now, however, endeavour to do so, and shall commence with the most southern work—the celebrated Carclaze, a description of which I have no doubt will prove interesting. This large pit, or excavation, is 126 feet deep from the surface, and is over 2000 yards in circumference, quite open to the view of the stranger from the bottom to the top, with eight water-wheels, one over the other, carrying 48 heads for stamping the tin that is taken out of the clay, which is found in small veins, or lodes, running nearly east and west through the bed of china-clay. How long this place has been working for tin there is no history to show. It has been said that it is one of the places where tin was first discovered in Cornwall; how far this is correct I must leave your readers to judge, or, perhaps, some one will be able to give better information on this subject than I am able to do. There is no doubt, however, that it has been worked for a great length of time, and large profits returned, as the present company has been able to return sufficient tin to meet all the expenses, and to raise 5000 tons of clay per year, free of any charge, and giving a clear profit to the three fortunate shareholders of over 13000l. per year each. This place is in the summer season very frequently visited by the gentry of Cornwall and other parts, to see its antiquity, and, on Oct. 13, was visited by the French Prince Jerome Napoleon and suite, who were highly pleased with the place and the operations throughout. Leaving this place, and passing north, we pass by several small clay works, some of which are returning from 1000 to 15,000 tons per year. From those we next come to the Great Bonny, Nine Stones, Gun Heath, and Wheal Martin, which are all large and extensive works, returning over 3000 tons per year, and the clay of a better quality than the works before mentioned, both for the potters and bleaching purposes. Still passing north about ½ mile, we come to the North and South Candle Downs, Clives, Wheel Donkey, Great Beam, Wheel Hope, Goonbarrow, and Wheal Prosper, all large works, and the clay of the best quality, worth from 25s. to 30s. per ton, free on board. On the Great Beam and Goonbarrow there is a small steam-engine for pumping the water and stamping the tinstuff, which is generally let to men on tribute, at about 10s. in 1l. Having thus mentioned the principal works in this district, I will now give a description of its discovery, making marketable, cost of getting it per ton on board, profit per ton, men employed, &c. The beds, or deposits, are generally found on a flat or hollow pan of ground, in the side or on the top of the granite range, where pits are put down through the alluvial deposit, which is generally found to be from 6 to 10 ft. in depth, where the clay is discovered, and, if the sample is found to be satisfactory, an adit level is taken up at the most convenient place, and brought in from 20 to 40 ft. deep; and when the overburden is removed water is taken in over the top of the clay, or as high as circumstances will admit, when the clay is broken up at an angle of 45°, and the water left to run over it, which carries the clay in to the pits made for its reception. In these pits the clay settles down, and the water goes away as pure as when taken in. When these pits are full they are landed into the pans, made of sand or built of stone, about 1 foot deep, and, when hardened sufficient to be removed, it is cut into square pieces, and spread over the ground to dry; and where there are kilns for drying it is run into them and dried by fire. This is considered the cheapest and best way of getting it fit for the market, as there is no wasting with the rain or other inclement weather.

The entire cost of the whole process in getting the clay loaded in the wagons is about 6s. per ton, on an average carriage to port of 2s. 6d., dues 3s., making a total cost of 11s. 6d. per ton; or leaving a profit of about 9s. per ton on all the clay that is raised, which is about 60,000 tons per year in this district alone; thus giving a clear profit of 26,0000l. or 27,0000l. per year, or over 40 per cent. on the outlay of 10000l., which may be fairly taken as the required outlay for getting the works into an efficient and effectual working. Besides this profit on the china-clay, there is on most all the works a good profit on the tin, as in the Carclaze, Great Bonny, Clives, Great Beam, Wheel Union, &c. At the latter place they are making good progress in heaving in their steam-engine and stamps, and I have no doubt when in course of working they will be able to raise sufficient tin and iron to meet the expense of raising from 2000 to 3000 tons of clay per year, cost free. The Savath Hills will also be enabled to make a clear profit of all the clay that can be raised, and I hope to see this in full operation, as well as the Wheal Union, not only for the welfare of the proprietors, but to give employment to the poor labourers that

are now out of employment in this district. The number of hands now employed at the various works in operation is as follows—Clay men 750, miners 260, boys and girls 216—making a total of 1226, besides tradesmen, carriers, &c. This number will, no doubt, be greatly increased, as there are new works going on, and will continue to do so at the present price of tin and other ores. And even if the metal market was brisk, I know of no investment so sure and safe as the clay trade is; and as there is a great field open, I trust the capitalists will turn their attention to it, and I am sure they will get well paid. Perhaps it may not suit the mere mining speculators. For the clay trade no telegraphic despatch will be wanted to say the lode is cut rich to-day and to-morrow poor; all would be safe and steady, giving a clear profit of from 30 to 40 per cent. Before I conclude this, let me ask what the clay trade has done for the town of St. Austell? Let the capitalist visit the place, and it will tell its own tale, to see the new mansions that have been lately built by persons who only a few years since were standing behind the counter or working at their trades, and are now independent gentlemen.

MIGRATION OF WORKING MINERS.

SIR,—The migration and emigration questions are now attracting a great deal of attention from workmen, and I think that if the matter be fairly and freely discussed, neither working miners nor those employing them will have cause to regret that the question has been raised. It is most undesirable that either the attractions of or the objections to any country should be exaggerated, yet I think that scarcely a statement has been put forward which does not take a most unfair view of the subject either one way or the other. It has been stated by the opponents of emigration that last year a large number of Welsh colliers and miners left South Wales for the United States, and the exodus at one time threatened to become so general as to cause serious apprehensions at the iron and coal works that there would soon be a great scarcity of hands. Warnings were addressed to the men at the time, and incontestable evidence was adduced, showing that the specious representations of interested emigration agents were far from being borne out by facts, but this had little effect in checking the movement. The drain was so great in particular localities that many of the collieries had to go on short time. At last, however, a decided change has been brought about, a number of emigrants having returned, and their accounts of the position of the miner in the United States is by no means flattering. It is true that wages are about 20 per cent. higher on the average, but on the other hand the cost of the necessities of life and other requisites is far in excess, and in reality the collier is better off in this country. These facts have had considerable influence on the miners of the South Wales district, and many that had expressed their intention of emigrating next spring have already determined to remain in their present employment.

Now, I do not mean for a moment to infer that all who emigrate succeed so well as the anticipate, nor do I state that it is not more advantageous to remain in England than to emigrate at all; indeed, the Cornish miners can obtain such high wages in the coal district that I am convinced that they will find it more advantageous to emigrate to the North of England or Scotland than to emigrate to America; but it must not be forgotten that English miners who go to the United States can by ordinary industry become possessed in the course of three or four years of a good freehold property of 10 or 20 acres, and a few sheep and cows to feed upon it; and these are things which cannot be lost sight of by—

A WORKING MINER.

PROSPECTS IN THE CARADON AND LOVELL DISTRICTS.

WEST CARADON, AND EAST WHEAL LOVELL.

SIR,—I had the pleasure, a fortnight since, of writing on this subject, in which I stated the desirability of sinking a shaft in the unwrought ground at WEST CARADON. I am glad to find that at the meeting of shareholders just held it was decided to carry out this necessary work, which will, in all probability, be attended with results equal to, if not surpassing, any yet met with in the limits of this rich mineral tract of ground; there, like all other mines which are situated within the great mineral channel, the lodes turn out large masses of copper ore at shallow depths; hence, I hold that in carrying out this work the chances of meeting with large deposits at a comparatively small depth are very great. In a similar section of ground, which was developed some years since, and which is parallel to and adjoining it, profits to the amount of 30,000l. was divided among the shareholders in the short space of three years. The richest lode in all the district—Jope's lode—passes through this ground, and wherever it has yet been wrought it has proved productive. A large portion of the returns of SOUTH CARADON, which is adjoining, are now being raised from it, and I need not remind you that this is the richest dividend mine in the country; so that with a few such lodes as these there is not much speculation in operating on the ground in question. Since my last, improvements have taken place in Arenadus, Downing's, and Jope's lodes in the eastern part of the mine, in driving west on the latter, in the 116 fms. level, they have cut the little cross-course. In the upper levels, on these lodes, be it remembered, the most productive ground was to the west of this said cross-course; and, indeed, until they had got through it the lodes were not very prolific, as will be seen in the level above, where, after passing it, they drove over 40 fms. of continuous ore ground. The 116 fathom level will now be continued into this bunch of ore, and the 128 fms. level is not far behind it. These points are of great importance, inasmuch as they will open up sections of ore ground that can be taken away at a good profit, and when it is understood that an additional monthly quantity of 20 tons only is required to meet all the expenses of the mine, including the new shaft, it is not much to infer that these points, together with the shallow bunches of ore to be met with in opening up the new ground, will place the mine in as good a position as it ever was when dividends were paid, and the shares freely realised on the market 100l. per share; indeed, there is nothing wanting to accomplish this but a thorough development of the lodes, and I shall be much disappointed if it does not turn out what I have predicted, such being based on practical analogies and comparison.

EAST LOVELL.—It will be in the recollection of many that I have stated it to be my opinion that Turpin's lode is the main lode of this mine, and all that was required to prove it was its development. Now that this is being done by the sinking of Turpin's shaft, it is confirming my opinion beyond doubt; and, on reference to my last letter, it will be seen that the lode in the bottom of the shaft had already shown appearances of becoming rich on deeper sinking, and that it was then worth 80l. per fathom for tin, although only 22 fms. deep. I have now the gratification of saying that the lode since last week has increased in value to 200l. per fathom, with every prospect of becoming more valuable as the operations are being carried out; and taking this into consideration, combined with its economical working, I believe there are few, if any, tin mines in Cornwall that will pay better interest to the investor on the present market price of shares.—*St. Day, Sourier, Cornwall, Nov. 6.* CHARLES BAWDEN.

P.S.—My next will contain some remarks on a mine which will ere long take a prominent position in the market, at a considerably increased price. C. B.

PENHALE AND LOMAX, AND WHEAL GOLDEN MINES, AND THEIR MANAGEMENT.

SIR,—My business vocations calling me periodically to the neighbourhood of these mines, I feel interested in their development, fully believing they will prove of considerable value to the locality, and to the shareholders interested therein. It is about twelve months since PENHALE AND LOMAX was started, under the most favourable and glowing conditions—an ample capital (nominally), a respectable board of directors, and the general management satisfactory. The same may be said of WHEAL GOLDEN, although of a more recent origin. My surprise is, however, very great to find on my tours the altered state of things in so short a time, and the complaints loud and general that the pay to the men has been again and again postponed from variously assigned causes, but none that are deemed satisfactory to the men themselves, or likely to inspire the public with confidence in the company or its management as at present carried out. I have, therefore, taken some little trouble to institute enquiries that would solve the mystery of the sudden dropping off of all that was cheering some months since; and the conclusion I have come to from the consideration I have given the subject is that "there is something radically wrong" in the company, its constitution, and its management, and the sooner it is ameliorated the better for the shareholders and all concerned.

In looking over the Share List of the *Mining Journal*, I find the company have called up 1l. 10s. per share on 15,000 shares, which will amount to 22,5000l., out of which 11,5000l. would have to be deducted about 40000l. as falling under the head of free or promoters' shares, which would then leave 15,0000l. as a working capital, a marvellously large sum for Penhale and Lomax in so short a time, but I make every allowance for the difficulties in getting in money, even when called up, and having a large margin to work upon, say one-third, or 600000l., remains in arrear. I have 12,0000l. been judiciously expended on the mines? Nay, if the liabilities of the company are so heavy as currently reported, and which seems to hang gloomily over the mine, has 900000l., or one-half, been well spent on the mines? Surely, I think this is a matter that requires a searching investigation. With regard to the management, it is a difficult matter to know on whom devolves the responsibility of spending money by thousands. We frequently see reports from the mines, with the dates affixed, purporting to come from Penhale and Lomax, signed by J. Kitto, J. Brown, and C. Rosewarne, stating the progress made in working, &c. Now, if I am correctly informed, Capt. Kitto must very well know that when he stood sponsor to these reports he has been in the other end of the kingdom, sometimes in Cumberland, Shropshire, in the Isle of Man, or in Wales. To verify his reports he must be quite a locomotive captain. I think I may venture to assert that he has not visited the mines half a dozen times during the last twelve months; therefore, his services cannot be of so much advantage as they should be in superintending the mine in its heavy outlay. The other agents are resident, but to whom they are responsible it is difficult to discover. There is a resident manager, a second-rate captain, a clerk, and a person who is nominally a storekeeper, but ostensibly a manager's deputy; this staff of officers costs the company no less than 400l. per month for the management of the mine—a sum that might be very safely greatly reduced, and the work performed with far greater efficiency. These things, and the placing the company on a good footing, imperatively call for all legitimate shareholders to see that existing abuses should be removed, and then Penhale and Lomax might soon rank with some of the best mines in the neighbourhood. There seems to be but one opinion respecting the ultimate success of that or the Wheal Golden Mines. Soon after Penhale is forked they would be in a position to return 30 or 40 tons of lead monthly, and that quantity would be augmented by the proper development of the mine. Tributaries are now waiting to take ground, but are deterred from the fear of the Stannary laws, and the ominous aspect of the pecuniary affairs of the company. I am prompted in writing this

for the well-being of all concerned in the mine, and hope the mine will be successfully carried through, but the shareholders must take action to save it from ruin if it is fast drifting into ruin.

LITTLE CAN BE SAID OF WHEAL GOLDEN. Its works seem more economical, as well they should be, seeing that but very little money has as yet been paid on the mine, although a good deal of work has been done; it tells on the price paid for labour under such difficulties. I hope the affairs will be better adjusted, and the dreadful calamity averted that seems likely to overtake the poor men, who have now twelve weeks' money due to them, and unless speedily paid their supplies will be stopped.—*Nov. 5.* PRO BONO PUBLICO.

SHAREHOLDERS AND DIRECTORS.

SIR,—Ever active, ever energetic, ever speculative, in spite of the severe lesson just received, the characteristic of the Anglo-Saxon race will remain unchanged, and next year the semi-gambling and semi-trading companies will again find favour in the eyes of the public. Shares in undertakings for the manufacture of gas in cupboards, or the extraction of sugar from offal, or the consumption of water as a substitute for fuel, will again be greedily taken up and anxiously dealt in. As a trading community, there ought to be no obstacle in the way of fair and legitimate trading, but in the present state of things it is all on one side. The directors have had much the best of it, and very unfairly so, simply because the remedies in an appeal to the higher courts of Equity are either out of reach of shareholders, or not understood by them. And then, another piece of injustice; the directors have the complete control of the funds of the company; the shareholders' money is too frequently used with the utmost laxity in defending themselves.

For the sake of illustration, we will suppose a company whose registered object appears to be (*prima facie*) for the purpose of making a ladder to reach from the bottom to the top of Mount Blanc, with a capital of 100,0000l., in 20,000 shares of 50l. each. Four directors undertake this arduous task, and charge the company 10000l. per annum for their services; one of these gentlemen doing double duty as director and secretary, for which last office the company is charged an extra 5000l. per annum; 2000 shares are subscribed for, which the directors allot, and commence the business of the company, well knowing that the sum of money so placed at their disposal will not give them the remotest chance of carrying out the object for which the company is formed, no more shares are taken, and at the end of three years the directors apply to the Court to wind-up the company, for the purpose of obtaining their salaries out of a compulsory order upon the shareholders to pay up the balance of 40l. yet unpaid on the 2000 shares. The shareholders join together, and ask the Court to make an order upon the directors to refund their money, which the directors had no right to deal with. The order is allowed, the company to bear costs and absolute debts incurred; but whilst the Master is hearing the petition he observes, what?—the secretary, being a director, holds this lucrative post under himself; and the directors' travelling expenses charged in England, not one of them ever having been within sight of Mount Blanc. But the directors and secretary-director, although disappointed in obtaining anything out of the winding-up, get off scot free, although they have wilfully and uselessly frittered away the money belonging to the shareholders. This is the great hardship upon the public, and here is wanted the remedy and the reform. Besides, it is not every shareholder who will venture to the Court of Chancery, even to save his own pocket; and, where the accounts are unopposed, the directors are left to set the law in motion, and wrest the last shilling from the industrious tradesman, and bring ruin and desolation to many a fire-side. But it is the duty of Government to protect even the simple against the cunning and crafty as much as possible. What we want is a Trades' Court, to deal with trading cases, but let it be a Court easy of access. If such a Court existed, the banding together of directors and others against shareholders would not be so frequent, and more confidence would be immediately established. The Court must have full power to deal with such cases—power to commit to prison, or even to transport the worst cases.—*Belstone Consols, Nov. 6.* JOHN CALVERT, C.E.

Meetings of Mining Companies.

UNITED MEXICAN MINING COMPANY.

The ordinary half-yearly general meeting of shareholders was held at the offices of the company, Finsbury-circus, on Wednesday, Mr. C. MORRIS in the chair.

Mr. W. M. BROWNE (the secretary) read the notice convening the meeting. The general operations, showing the approximate result of the operations of the company in Mexico for the six months ending June, 1866, resulted in an excess of outlay of \$13,538.

The report of the directors stated that of the excess of expenditure, \$10,440 had been expended on the new mines in the Oscura district—an outlay fully justified by the favourable indications met with. The June report stated that the ore in the deep workings of the Mine of Jesus Maria y Jose had improved in quality, but undue importance must not be attached to this circumstance, as the produce from this mine has been and is subject to much fluctuation. It is, nevertheless, a favourable feature, especially as the ore appears to be making downwards over a considerable space of ground. With increased depth the work is more regular, and the corresponding expenses, and unless the value of the ore proves of a remunerative character it will become a matter for consideration whether it will be to the interest of the company to continue these operations, though prosecuting works of research there is always the chance of new and profitable discoveries being made; and there remains also the question whether it may not be possible to introduce more economical arrangements by which profit may be obtained from the large quantities of poor ore which the mine evidently still yields. The directors have this question under their anxious consideration.

Mines in the Guadalupe de la Oscura District: Since the report of the directors in May last, the operations have been principally confined to the Mine of Encinillas, in which ore of a rich class has been discovered. The necessary work of ventilation having been completed in August, the commissioner in his report of that month stated "that business had been set to work and some very good ore had been obtained, also that there was every probability of the chief expenses being covered by this means." In his letter, dated Sept. 20, he says—"The ventilation depth the work is more regular, and the corresponding expenses, and unless the value of the ore proves of a remunerative character it will become a matter for consideration whether it will be to the interest of the company to continue these operations, though prosecuting works of research there is always the chance of new and profitable discoveries being made; and there remains also the question whether it may not be possible to introduce more economical arrangements by which profit may be obtained from the large quantities of poor ore which the mine evidently still yields. The directors have this question under their anxious consideration."

Finance: The cash balance in Mexico on Sept. 15 was \$6476, and a mint certificate for \$2524, making together \$10,000, against which there was \$3850 for quicksilver purchased, and \$1100 for salt. This is independent of the silver in the haciendas and sundry debts owing to the company, of which the directors have no correct data for this report, the Mexican balance-sheet being only rendered at the annual meeting in May. In England the company has at this time (including the reserve fund) about 16000l. clear of all liabilities. The directors have already stated that funds may be required to follow up the works of the mine in the Oscura district, and they have, therefore, to ask the permission of the proprietors to use, as far as necessary, the trust and reserve funds. Management in Mexico: The directors have to inform the proprietors that the services of Mr. Fitzherbert, as commissioner of the company in Mexico, will terminate in January next, and that they have been anxiously considering the appointment of a successor. In making such an appointment they have in view the necessity of having a gentleman possessing rather unusual qualifications; and they will be much assisted by the acquiescence of the shareholders in the financial arrangements they have proposed.

The CHAIRMAN said that although the accounts from the old mine were, perhaps, not so satisfactory as could be wished, yet the prospects of the new mines were more encouraging than could have been reasonably anticipated. It was not very often that a mine after working only 18 months was found to pay its expenses, yet the last report from Mr. Fitzherbert stated that these new mines were paying their expenses, but at the same time it was necessary that further means should be provided for the purpose of extending the scale of development. The report referred to the fact that the directors sought permission to make use of certain sums of money in hand standing to the credit of the trust and reserve funds, amounting together to 70000l. Although the directors asked for that power, there might not be any necessity to exercise it for some considerable time, and perhaps not at all. He further stated that Mr. Fitzherbert was about to leave the company's service on account of ill-health, which he (the Chairman) need hardly say had been a source of anxiety to the directors, knowing, as they did, that the health of Mr. Fitzherbert had been failing him for some time past. He concluded by moving that the report and accounts be received and adopted, and that the directors be authorised to act upon the suggestion made in their report.

Mr. PALGRAVE seconded the proposition. The CHAIRMAN, in reply to a question, stated that the directors, after much negotiation, had induced Mr. Furber to return to Mexico as Mr. Fitzherbert's successor, and that Mr. Furber proposed to leave England on Dec. 2. Mr. J. PHILLIPS (a director) said that in 1854 the company was in a position similar to that at the present time; a capital of 16,0000l. was then raised for the purpose of carrying on the mines, without which the company must have soon come to an end, but the result was that the mines yielded a profit of over 100,0000l., of which there had been paid to the shareholders in dividends 75,0000l. As he had already said, the company was in very much the same position as it was in 1854—that is, the old mine, Jesus Maria, had failed, the chances of so rich as it was, although abundant in quantity. Therefore, the chance of that mine paying its way depended upon the skill which Mr. Furber, from his intimate knowledge of mining in Mexico, would bring to bear upon it. But besides that they had this new property in the Oscura district, and especially the mine of Encinillas, which was producing very rich ore. As one who had been acquainted with mining for nearly 40 years, he had no hesitation in saying

that he could almost stake his reputation upon that property turning out profitably, if properly developed. Of course capital had to be expended to open it. By authorising the directors to use the trust and reserve funds for a time, and thus prevent the necessity of making a call, the shareholders would be promoting their own interest, by affording the means to develop this important property. He might mention that the same thing was done some years since: the fund was created out of the profits of Jesus Maria, the directors having deemed it right to put aside a certain amount as a reserve fund (which could be used as they pleased), and also an amount to meet certain liabilities, which they might never be called upon to liquidate. Supposing they did use these funds, the time might come when they would want to replace them if profits were realised; but if profits did not arise the shareholders would have to make a portion of the amount good, provided they were called upon to do so. By the adoption of that suggestion the directors would be assisted, and Mr. Furber's hands would be materially strengthened in developing a very valuable property. Mr. FURBER said he left Mexico in March, 1865, on account of ill-health, having managed the Jesus Maria Mine and others in the same district for 22 years. As regards the old mine, the question in his mind was whether, by increasing the extraction, dividing the general expenses over a large surface, a profit could not be realised where now a loss was made. His object would be to endeavour to reduce the general expenses, and at the same time increase the extraction. If he failed to make the poor ore give a profit he should recommend that the mine be given up, and that their exclusive attention should be directed to the mines in the Ocuila district. There they had different kind of ore, being narrower, and the company had expended not more than \$30,000 (6000*l.*), which was no very great amount, those mines were already actually paying their expenses. The veins produce 28 marcs per month, while the average at Jesus Maria had not been 5 marcs per month—consequently those mines were worked in a different manner.—The CHAIRMAN said that the comparison was 130 ozs. as against 40 ozs. per ton.

Mr. FURBER, in reply to a question, stated that the Encinillas was abandoned in 1810 during the revolution: it had been worked a great deal at surface, and about 12 years since an adit was driven, and communicated with the main workings at a cost of something like 100*l.*, when operations were discontinued before even the lower workings were explored—in other words, the proprietor had not sufficient capital to carry out the work.

The report and accounts were received and adopted, and power was given to the directors to act upon the suggestion embodied in their report. Mr. PALGRAVE, as a large shareholder, thought he might fairly congratulate his fellow-shareholders upon the arrangement that the directors had made with Mr. Furber, which he (Mr. Palgrave) hoped and believed would tend to the future prosperity of the company. (Hear, hear.) He had great confidence in Mr. Furber, and he felt satisfied that that gentleman would use his best exertions to make this a paying concern. He concluded by proposing that the best thanks of the shareholders be given to the Chairman and directors, for the manner in which they continue to conduct the affairs of the company.

The resolution having been duly seconded, was put, and carried unanimously. The CHAIRMAN appropriately acknowledged the vote.—Mr. WILLIAMSON (a director) mentioned that it had been a matter of pleasant negotiation to induce Mr. Furber to go to Mexico, and that his acceptance of the appointment was a favour conferred upon the company.—The meeting then separated.

#### CAPE COPPER MINING COMPANY.

The third ordinary general meeting of shareholders was held at the London Tavern, on Thursday.—Mr. W. BEVAN in the chair.

Mr. J. C. LAVER (the secretary) read the notice convening the meeting. The report of the directors stated that the two circumstances that have mainly operated against 1865 were the drought in the colony in that year, and the depressed state of business in this country during 1865. At the end of 1864 there was lying at the mines the large stock of 1145 tons, and during the Cape winter, or carrying season, it was to be expected that this stock and the yield of 1865 would have been removed. As the season advanced, however, it became evident that a most extraordinary drought was affecting the colony. Theveldt, or pasture, that usually during the carrying season affords nourishment to the cattle of the riders, was completely scorched up; the crops were destroyed, and the oxen perished upon the roads. The effect of this was a serious diminution in the quantity carried to the coast. Owing, however, to the zealous efforts of the colonial managers, and the anxiety of the riders to earn sufficient to save themselves from destitution, 3500 tons were, with great difficulty, carried to the coast; leaving the still very large stock of 1727 tons lying at the Ookiep Mine. The chief effect was felt upon the up-carriage, as in consequence of the reduced number of wagons arriving at Hondeklop, combined with the exhausted state of the cattle, the riders were not able to take back their usual proportion of return loads. The up-carriage, therefore, was small in quantity, and at a very enhanced rate. Good quantities of coal and coke had been dispatched from this country to Hondeklop for the smelting works, with a view to their rigorous prosecution, but the supplies from thence were intermittent and scarce, and the operations, therefore, unprofitable. In this country, owing to the unsatisfactory state of business generally, the prices of copper ore fell to an unusually depressed rate, rich ores having sold as low as 12*s.* 10*d.* per unit, the average price in the year 1864 having been 17*s.* 6*d.* per unit. Having put these unfavourable features before the shareholders, it is satisfactory to the directors that they can take a more cheering view of the future. The rains this year commenced falling at an early date, and the effect has been to the advantage of the colony, and a more prosperous condition. Theveldt has been unusually luxuriant, and the cattle have come forward so freely that the colonial managers look forward to both the old and new stock of ore being carried away by the end of the season. By the last advices upwards of 2000 tons were already on the beach waiting the arrival of vessels, and the ore was still coming down daily.

The Mine of Ookiep has yielded during the year 3212 mine tons, and the ground laid open in new works during the year has more than made up for the ore extracted, so that the reserves are increased. Much labour has been expended in improving works, consisting of sinking an inclined plane for the more expeditious and economical removal of the ore stuff, and of a large mass of dangerous overhanging top rock. The result of these works, entailing a large present expenditure, will benefit hereafter in the diminution of mines cost and increase of production; but some return of ore has attended them, perhaps nearly sufficient to cover the actual cost of the works. Spectacle Mine has, as was anticipated some time since, failed to yield sufficient ore to render working profitable; and although it is highly probable that a bold trial to a greater depth might result in the recovery of the company, the mining agent is of opinion that it is not sufficiently sanguine on that point to justify the directors in the necessary outlay. At the Nababeep Mine the trials alluded to in the last report have been continued with vigour, but there have been great fluctuations in the appearance which the workings have presented. From the latest reports Capt. Clemens seems to be disappointed in his expectations as to one portion of the mine, but holds out of low cheering prospect of a part known as the small Kop. Many tons of ore of low quality have been extracted, and there is enough of rich ore found occasionally to justify a further prosecution of the trial of this mine, where the surface indications are very encouraging, and the supply of fuel, which was so impeded by the irregularity and shortness of the supply of fuel, that sufficient returns have not as yet been obtained from the furnace to repay the cost expended. During some small portion of the time, however, that the operations were fairly continued the results were such as to lead to the conviction that when a good reserve of fuel has been stored at the works, which it is hoped will be the case by the end of the present riding season, the operations will be resumed under circumstances that will ensure a profitable return.

In the report of last year the shareholders were particularly drawn to the subject of roads. This difficult matter has been constantly under the consideration of the directors ever since, but the many and conflicting questions that have arisen connected with it have as yet prevented any decisive step being taken. The surveyor, Mr. Hall, who was dispatched to the colony, after much careful examination, made a very full report, giving a comprehensive view of the transport subject, and upon the roads and ports especially, recommending the partial abandonment of the present line of road to Hondeklop, and the repair of the road to Port Nolloth, as well as the construction of a tramway over the sandy portion of that route. The heavy outlay which would be required has prevented the directors from adopting Mr. Hall's recommendation; but they are anxiously endeavouring to procure aid from the colonial Government by grants of convict labour, and of money contributions, towards the improvement of both the roads named. The balance of profit for the year is shown to be 13,968*l.* 12*s.* 7*d.*, out of which a dividend was paid on April 11 last of 10*s.* per share, amounting to 7500*l.*, leaving a balance of 6468*l.* 12*s.* 7*d.* The directors do not, however, consider that it would be prudent or advisable now to declare a further dividend from this balance, as there are still the following accounts open:—Nababeep trial works account, the expenditure upon the smelting works, the cost of Hondeklop tramway bill, and of Mr. Hall's survey. The operations in connection with these works may during the present year be sufficiently successful to avoid the necessity of providing for their liquidation out of the mining profits of 1865; should this be the case, the present undivided balance will be carried forward for disposal hereafter.

The CHAIRMAN, in moving that the report and accounts just read be received and adopted, observed that the directors had upon that occasion, as had been their custom at previous meetings, placed in the report, as fully as they possibly could, all the remarks which they desired to make to the shareholders with regard to the position of the mine; that being the case, there was but little left for him to say, but, nevertheless, he thought, full as the report was, there were one or two points upon which the shareholders might be anxious to hear something from him. He must premise that the directors were very sorry to meet the proprietors at that time of year. They had hoped to have met their constituents in the spring instead of the autumn, but the difficulty of arriving at a fair statement of accounts, owing to the delay in bringing forward the ore, had influenced the directors in postponing the meeting until they were able to render a full and reliable account of their stewardship. The accounts—although they did not show a balance sufficient, in the opinion of the directors, to warrant them in declaring a dividend—could not be taken as altogether discouraging, because they had had very many difficulties to contend with, the chief of which had been the adverse state of the copper market; this was followed by a very severe drought. Notwithstanding both these drawbacks they had made a profit of over 13,000*l.* That being the case, he would call the attention of the shareholders to one or two features in the accounts. The cost of production—upon the face of the accounts—seemed to be against the year reported on, as compared with its predecessor. That was, however, in some degree explained by the fact that, taking into consideration the cost of carriage, the ore had been more dressed, and thus the quality of it was, upon the whole, rather in favour of 1865 than 1864. It might truly seem by the cost that they had paid more for it, but it should be remembered that they got a higher assay for that cost. The drought, too, had seriously increased their expenses. Then, again, looking at the unpromising state of the market at home, the board did not urge the mine agent to try and force the mine to yield a high return, so that he rather confined himself to carrying out those dead works, which will prove remunerative hereafter. Part of those works had been charged upon the return of 1865, and that would explain how, apparently, the cost of production for the year now reported on was in excess of that of 1864. The next feature was a most serious depreciation in the value of the article which they had to sell. In this country, owing to the very unsatisfactory state of business generally, the price of copper ore had fallen as low as 12*s.* 10*d.* per unit, whilst in 1865 the average price per unit was about 17*s.* 6*d.* or 18*s.* Of course, that was a very fearful reduction in the value of the ore. The experience of the

directors as to the working of the company was briefly this—that the ores of that mine in 1864 sold at an average price of 16*s.* 6*d.* per unit, whilst the ores they were dealing with gave an average price of only 14*s.* 6*d.* per unit, showing a difference of 2*s.* per unit, which upon their high classes would be about 3*l.* per ton, so that there had been a clear difference of that amount per ton on the sales of the year. If the prices in the home market had only ruled the same as those current at the commencement of the year, when their copper sold for 18*s.*, it would have made a difference in their profits to the extent of 20,000*l.* So that he considered the shareholders would readily conceive that the drought at one end, and the low price of copper at the other, was a sufficient explanation of the falling off in their profits, and that it was not owing in any way to the producing powers of the mine being impaired. The next matter calling for some remark from him was the roads, and it was one intimately bound up with the question of profits. The transport from the mine down to the coast was a grievous and heavy burden to bear. The board's attention had been most constantly given to the question as to how to reduce that item, and many efforts had been made to attain that end, but hitherto the board had not been successful. With that end in view the directors sent out from England a gentleman well versed in surveying and the laying down of mineral railways. He had spent some time going over the estates of the company, and the board had had from him a very voluminous report, containing many valuable suggestions, which for two very good reasons the directors had not carried out—first, the heavy cost; and, secondly, because Mr. Hall was most distinctly in favour of one route, and the other, or rather in favour of repairing and improving the present one. From the negotiations which had been going on, it was pretty evident that the Government were willing to do something, and he had good reason for hoping that the next mail would bring the intelligence that 300 convicts were engaged in repairing, improving, and constructing the roads, the effect of which would be a great saving to the company, the cost of transit of ore would be very materially diminished, and the time of arrival and departure of carriers and riders made more certain. The riders, too, were in favour of the route, and had begged a sort of round robin, which had been sent home to the board, praying that the present route might be continued, as it was well known to them all, and promising if the petition were granted to use greater energy, so that the transit should be more regular, and the time occupied in the journey to and fro rendered more certain. The cost of the reduction-works, which were making good progress, had not been at once carried to profit and loss account, because the board were satisfied that the smelting-works would in the end lead to a large profit, and thought the cost of those works, while they would yield a large profit, each succeeding year, ought not to be charged wholly upon any one year; and the same applied to the other works, and Mr. Hall's survey, the last-named cost being intimately connected with the road question, the board thought it best to leave that account open until the question of the road was settled. He did not know that there were any other features in the report or accounts calling for special remarks from himself, and with those observations he begged to move that the report and accounts be received and adopted.

Mr. E. A. POSTHUMUS begged to second the motion. The Chairman had, he thought, gone so fully into all the details, that any lengthy remarks from himself were unnecessary. He could not help remarking, however, that the price of copper, owing to circumstances beyond the control of the board, had ruled at rates within one halfpenny of the lowest which had taken place for thirty years. One cause was that India, usually a large customer, had taken little or nothing; but with returning prosperity, doubtless its consumption of copper would be as large as ever, and she would be as good a customer as heretofore.

Mr. DESPARD wished to know whether the quantity of ore raised had been less? The CHAIRMAN said that from Ookiep the return had been somewhat more, but the weight had been reduced by the higher dressing.

Mr. DESPARD called attention to the expenses in London, as compared with other mines, and thought that they might be reduced. He suggested that the directors should endeavour to make some reduction.

Mr. FOCKING deemed it to be of the greatest importance that a good tramroad should be made immediately. The smelting-works were, in his opinion, entirely dependent upon the tramroad, because unless they had a good road to the coast they could not get their ore to the smelting-works. He also suggested that some portion of the ore should be divided, say 2*s.* or 7*s.* 6*d.* per share, among the shareholders, and would move an amendment to that effect to the report of the directors.

Mr. TAYLOR said it would be unwise to adopt that course. The balance-sheet showed liabilities, including bills payable, amounting to 50,000*l.* The largest portion of the property of the company consisted of ore which was still unsold, and the company had had to find the means of meeting those liabilities upon the security of that ore, so that the meeting would at once see that, though the ore was really in his hands, he had no money in hand to pay a dividend at that moment, and that it would be quite impossible for them to pay a dividend unless they borrowed the money to do so. Another season might be totally different. They had had a very bad season, but the present one was so good—so far as it had gone at present—that they might be able to return to their former stand-point, and pay a good dividend at the end. He would next refer to the state of the roads, which were very bad, and the tramway. He could assure the meeting that that was a difficulty which had been constantly before the mind of the directors, and of the company. With a view of solving it, both his brother and himself recommended a gentleman to be sent out, who had been used to construct lines, not only for conveying the ore one way, but for taking coals the other. Mr. Hall was sent out accordingly, and spent some months surveying, and the result of his labours was a very lengthy and valuable report. In it he was entirely in favour of the Port Nolloth route, but his conclusions and opinions were contradicted by the Government, who were in favour of the Hondeklop line. The board had not acted upon his advice, because as the Government seemed willing to assist in making that a good road, that assistance would be immediately at their disposal. A tramway for three or four miles would be of little use, as the cost of loading and unloading would be very considerable, and would be of small service unless they could have made it over a large portion of the road, which was hard and comparatively good, and a tramway, to be of real service, could not have been constructed without making a large call, of 1*l.* or 2*l.*, upon the shareholders. The district they had, contained large quantities of rich ore, and he fully believed they would be able to raise from 5000 to 10,000 tons a year, which would amply repay them when brought into a market which had retained its wonted buoyancy. Then as to the smelting-works, there could be no doubt of their utility, because, in raising their rich ores, there was an accumulation of less remunerative produce, which might be smelted on the spot, and yield a good profit. Their Ookiep Mine was going on prosperously enough. An inclined tunnel had lately been made, running down into the very heart of the mine, and all their various levels had proved remunerative, and there was enough ore discovered at present, which, at the rate of raising, 4000 tons a year, would last for some years to come; and in addition they had brought up a new ground, so that there was no doubt they had a most valuable property. The management of the mine at the Cape was in good hands, and the directors in London gave the utmost attention to the affairs of the company. Truly the expenses had increased, but they had a large property, and it was found necessary to have a secretary who would devote his whole time to the affairs of the company, as it was found in the working that the correspondence was so great that it was quite as much as one person could do to attend to it and properly conduct it. In conclusion, he assured the meeting that the board had always practised the utmost and most rigid economy, consistent with a proper performance of the work.

A SHAREHOLDER asked whether the smelting-works were intended to produce copper or regulus? Mr. TAYLOR replied that the smelting-works were intended to produce both, but they had not hitherto produced much regulus, because they were deficient in sulphur.

Major PLATT wished to know whether the carriers were friendly disposed towards the company.—The CHAIRMAN replied that they were. They had, in fact, received by a recent mail a sort of round robin from the riders and carriers praying the company to continue the present roads, and promising that they would endeavour to ensure great regularity and regularity in the arrival of the ore at one end and the coal, &c., at the other.

The report was then unanimously adopted.—Upon the motion of the CHAIRMAN the appointment of Mr. Wyde as a director was confirmed.

The CHAIRMAN then moved that the retiring directors be re-elected.—Major PLATT briefly seconded the motion, which was adopted unanimously.

Mr. JAMES KING moved, and Major PLATT seconded, the re-appointment of the auditors, which was also unanimously agreed to, and the proceedings terminated with a vote of thanks to the Chairman and directors.

#### THE SOUTH CORNWALL MINING COMPANY.

An extraordinary general meeting of shareholders was held at the Guildhall Coffee House, on Thursday.

Mr. ERWIN HARVEY WADGE in the chair.

Mr. C. WARWICK (the secretary) read the notice convening the meeting, which was to the effect that it was for the purpose of taking their opinion on the past conduct and management of the affairs of the company, as well as on the proceedings which have been taken by certain shareholders, which have led to such dissensions and misgivings; and to consider the desirability of immediately resuming the works.

The CHAIRMAN said that the shareholders were all aware of the object for which the present meeting had been convened. He had no doubt from the conflicting statements that had been made, and the innumerable circulars that had been published, that shareholders could neither understand the practical portion of the company, how they were to act, nor were they were to believe; therefore, he was pleased to see so large a number of proprietors present to judge for themselves. At the time of the last general meeting the affairs of the company were in a highly satisfactory condition, as the proceedings, which were fully reported, plainly indicated; but, subsequently, that had been questioned by those—and only by those—who had been instrumental in issuing these abundant circulars. At that meeting the question of the election of new directors resulted in the appointment of Messrs. Brocklehurst and Roby, which selection, to his mind, did not prove a very happy one. The fact that the shares had fallen hands was not a 17*l.* 10*s.* each was a conclusive reply to the chief of Mr. Oliver's allegations; but he (the Chairman) might state that the directors had been quite unable in the whole of Mr. Oliver's circulars to pick out any direct charge, and, therefore, they were unable to reply. As to the purchase of the two mines—the Carthew and Cleer's Hill—Mr. Oliver had stated in one of his circulars that the directors would not take upon themselves the responsibility of that purchase, although it was recommended in the report of the directors, which recommendation was subsequently confirmed. The special object of the present meeting was to consider the past conduct of the affairs of this company; upon that point he, on behalf of the board, invited every investigation, feeling thoroughly satisfied, if the whole matter were gone into calmly and dispassionately, that every unbiased proprietor, setting aside all *ex parte* statements and personal animosities, would see that he would be promoting his best interest by not allowing the company to float into the hands of certain interested solicitors, but to forthwith adopt measures whereby would be ensured an efficient development of a property, the great mineral value of which was fully admitted on all hands. That such a course was imperatively and immediately necessary, was evidenced by the fact that the lord of the soil had informed him that unless the works at the mine were forthwith resumed, he should take possession for breach of covenant. The primary consideration of the shareholders should be what was best to be done with regard to the future working of their property, which he firmly believed would prove permanently remunerative. (Hear, hear.)

Mr. WILSON said he was a perfectly disinterested shareholder, and had no

personal feeling whatever, except a desire to support the board, provided they had acted fairly; but he believed that the report of the meeting held at St. Austell, upon which he and many others purchased shares, was incorrect. If such were the case he could not think the directors were worthy the confidence of the shareholders.—The CHAIRMAN said he attended that meeting, and if it were incorrectly reported he certainly was not aware of it; he believed it was a perfectly correct report.

Mr. HILL enquired how many shares were held by the Chairman?—The CHAIRMAN said that he had never actually held less than 80 shares, and sometimes more than 200; and as a proof who was most interested in the development of the property, he was prepared to take 200 of the unallotted shares, provided Messrs. Brocklehurst and Oliver each took a similar number. (Hear, hear.)

A report by Mr. Spooner, public accountant, was read, as follows:—  
Nov. 8.—The books and accounts of this company having been submitted to me for examination, I have to report as follows:—As regards the balance-sheet published containing the statement of the company's affairs from its commencement, on Nov. 28, 1865, to May 31, 1866, I certify that it is in accordance with the company's books, and that the whole of the balances and amounts are correctly and truthfully inserted in that balance-sheet. Some vouchers for small amounts are not in the company's possession, but I am informed they will be obtained. The cost-sheets have been loosely rendered, and have not in some instances been signed or vouched. This has now been partly remedied, and those lately sent have been more in order, though I am of opinion more regularly should be enforced with respect to them. Since the last statement to May 31 I have examined the cash payments to Oct. 15 last, and with a few exceptions, for small amounts, the whole are duly vouched, though the same remarks apply to the cost-sheets as at the previous period. Of the call of 3*l.* per share, made on July 18, amounting to 6750*l.*, there has been received 6135*l.*, leaving a balance due on that call of 615*l.* There is also an arrear of 150*l.* on the allotments. The expenditure during the same period has been chiefly for the purchase of the Cleer's Hill and Carthew Mines at a cost of 10,000*l.*, in additions to plant of 896*l.*, and on mine cost of 2065*l.*

A lengthened and somewhat personal discussion then ensued upon matters altogether irrelevant to the business of the meeting, when Mr. WARWICK having stated the number on the register to be 10, the SOLICITOR of the company rose to a point of order, inasmuch as there was no motion before the meeting.

Upon the question of the original purchase, the CHAIRMAN said that it was plainly set forth in the Articles of Association, which were open to shareholders.

Mr. PIKE said that, although it appeared their property had been purchased in a cheap and sold in a dear market, yet a proportion of the shareholders were endeavouring to damage their own property by the course they were adopting. During another long and desultory discussion (in which Messrs. Oliver, Brocklehurst, Lewis, Dr. Rogers, and others took part), several personal charges were made and replied to, and several propositions were made.

Mr. LINKLATER (who appeared for a shareholder) said it seemed to him that many of the explanations which had been made were perfectly satisfactory, but that enough had been stated to show that the present meeting could come to no other practical alternative than to appoint a committee of investigation, consisting of members wholly independent, unbiased and disinterested, to consider the past, present, and future. Such a committee could, of course, be of no advantage unless the members were totally independent of either party.

The CHAIRMAN said he could not have the slightest objection to the adoption of the course pointed out by Mr. Linklater. (Hear, hear.)

It was then resolved that a committee of investigation should be appointed, with power to appoint Mr. Linklater as their solicitor.

Messrs. Crosskill, Wilson, and Hill were elected members of the committee.

The CHAIRMAN said that every document, book, and paper connected with the company should be open to the committee, and as regards the resumption of the works at the mines—which was most important—he would take upon himself the responsibility of that necessary operation.

A resolution was, however, passed to the effect that the mines be re-worked in a manner to prevent the forfeiture of the lease. The meeting was then adjourned to Dec. 6, at the same time and place, to receive the report of the committee.—The meeting was attended by upwards of 40 shareholders, who represented in person and by proxy nearly two-thirds of the entire capital of the company.

#### FOREIGN MINING AND METALLURGY.

The rough profit realised by the John Cockerill Company in the exercise of 1865-6, the accounts of which have just been made up, amounted to 79,044*l.*, as compared with 58,762*l.* in 1864-5. The total of the affairs transacted in 1865-6 was 596,930*l.*, as compared with 412,588*l.* The net profit of 1865-6 was 31,250*l.*, as compared with 12,500*l.* in 1864-5. The profits of 1865-6 are to be divided as follows:—Three per cent. to the directors, 977*l.*; 2 per cent. to the commissaries, 625*l.*; 10 per cent. for redemption of mortgage debt, 3125*l.*; and 5 per cent. to the reserve fund, 1562*l.*; leaving a balance of 25,000*l.* divisible on the shares, and admitting of a dividend of 2*l.* per share. No important fact has transpired in connection with Belgian metallurgy. The position of the blast-furnaces has remained without much change; the stock of pig continues considerable, and does not seem to run off very freely. No decision has yet been taken by the foremasters of the Charleroi blast with reference to the extinction of blast-furnaces; nevertheless, this idea has its partisans, and it would not be surprising if this measure were shortly carried out somewhat generally in the Charleroi basin. However this may be, a policy of extinction has been adopted in the Liège basin by the Selsin Company, which has just extinguished one of its four blast-furnaces; nevertheless, the position of the market for pig is not so easy in the Liège basin as in the Charleroi basin. The rolling-mills of Belgium have now employment assured to them for the winter, and some fresh orders of importance are stated to be in course of negotiation. As regards railway plant, we learn that the Belgian Railway Plant Company has concluded this week a contract for 11 locomotives for the Great Luxembourg Railway, and that the directors of the Liège are waiting until foreign Governments have come to a decision on whether or not to the merits of Chassepot muskets or otherwise. Portugal alone has adopted a decision on the subject, but the Portuguese arms being of English manufacture their re-handling has been confined to English manufacturers. Great activity continues to prevail in the Belgian coal trade, and prices are so firm that it may be said that they are accepted without discussion. In the Charleroi basin there is nowhere any stock, the coal raised being taken off as fast as it is extracted. The miners are beginning to return to their work, but the supply of labour is still far from adequate, so that the extraction continues restricted. In the Liège basin the anticipated advance in prices has taken place, and although work has been resumed by almost all the men who had quitted their employment, the demand is still much superior to the production. The deliveries by railway are so active that many stations are quite choked up, and at several points railway plant makes default. It is in the basin of the Coudenberg that wages are the highest, and it is there, nevertheless, that the want of labour has made itself the most felt. The production is much inferior to the demand, and coal workers are obliged unwillingly to raise their prices. Prices have not varied materially; fine forging coal is especially in much demand, at 6*s.* 7*d.* per ton. Washed coke has made 1*l.* 4*s.*, and unwashed 1*l.* 8*s.* 6*d.* per ton. Today (Saturday) the Vieille Montagne Company will commence the payment of the second half of the dividend for 1865, or 7*s.* 6*d.* per tenth share. The Silesian Mines and Ironworks Company will pay on Nov. 15 the second dividend for the exercise 1865, or 4*s.* 4*d.* per cent. Meetings are announced as follows:—Châtelineau Blast-Furnaces, Ironworks, and Collieries Company, Nov. 8, at Brussels; Charleroi United Collieries Company, Nov. 8, at Brussels; Longdoz Mechanical Construction Company, Nov. 9, at Brussels; Jemeppe Collieries Company, Nov. 17, at Marchienne-au-Pont; Prague Iron Industry Company, Nov. 19, at Vienna; Vesdre Blast-Furnaces Company, Nov. 20, at Liège; Phénix Mines and Ironworks Company, Nov. 22, at Laar, near Ruhrort; Carlsruhe Machine Construction Company, Nov. 28, at Carlsruhe; and Darmstadt Machine Construction Company, Nov. 28, at Darmstadt.

Pig is neglected in France, scarcely any orders presenting themselves; prices, nevertheless, are maintained with tolerable firmness. Charcoal-made pig is quoted at 4*l.* 8*s.* 10*d.* to 4*l.* 9*s.* 8*d.* per ton; mixed pig, according to quality, makes 3*l.* 14*s.* to 4*l.*; and coke-made pig (speckled quality), 3*l.* 4*s.* per ton. The coke-made pig of the Moselle and the Meurthe is offered at St. Dizier at 3*l.* 4*s.* per ton. No transaction of importance has occurred in iron; prices are maintained without change at 8*l.* 16*s.* to 9*l.* 8*s.* per ton. In the Meurthe and the Moselle pig is still more neglected than in the St. Dizier group; white coke-made pig remains quoted at 2*l.* 18*s.* per ton. In railway plant, the activity is generally rather great, especially in the Paris construction workshops. The Call concern, which has just re-constructed its workshops on a gigantic scale, is especially active with work on account of Russian railways. A few further details with regard to the operations of the Call Company in 1865-6 may be acceptable. The central establishment of the company on the Quai de Billy was destroyed by fire on the night of Dec. 15, 1865, but prompt measures were taken to re-install the tools in the workshops on the Quai de Grenelle, which were not touched. This re-installation, coupled with the successive additions made to the Grenelle establishment, enabled the administration to execute (although not without the greatest efforts) a considerable and even exceptional quantity of work during the past exercise. Great loss was sustained by the company by the destruction of a large number of plans and drawings owned by it; the loss was, however, in part made good by copies obtained from the various branches, as well as from clients and other companies. As regards the material loss sustained by the fire, it was reduced to about 8000*l.* by the indemnities paid by insurance companies; and, upon the whole, the results obtained in the exercise 1865-6 are financially more satisfactory than could have been hoped. The whole of the profits realised by the company's various establishments enable a dividend to be declared at the rate of 3*l.* 12*s.* per share, or 18 per cent. per 20*l.* share. This result has been attained from large reserves were made for redemption of capital, &c. As usual, the dividend for 1865-6 is to be paid as follows: 1*l.* per share in the shape of interest, to be distributed Oct. 1, 1866, and 2*l.* 12*s.* per share in the shape of dividend, to be distributed April 1, 1867 (1*l.* per share in specie, and 1*l.* 12*s.* per share in a liquidation bond, bearing interest at the rate of 5 per cent. per annum). The exercise in course of execution commenced with a stock of orders amounting to 240,000*l.*, which has been increased during the last three months to the further extent of 52,000*l.* An important contract for railway plant, concluded recently on Russian account, and to be shared with the Fives-Lille Company, promises a continued activity to the works of the company. Meetings are announced as follows:—Epinac Collieries and Railway Company, Nov. 10, at Paris; Basse-Indre Forges Company, Nov. 29, at Paris.

The position of copper has much improved at Havre; the result during the last fortnight has been some very sustained affairs in Chilean, and the demand having acquired unexpected proportions an upward movement has followed; selling prices have ranged between 77*l.* and 79*l.* per ton, the article closing at 77*l.* 10*s.* to 78*l.* per ton. This revival in business at Havre will probably lead to an analogous movement on the secondary markets, but at present the modifications noted in prices are not very sensible. At Rotterdam, Drontheim, and other ports, the market is not very active. At Havre, United States Balmores has made 94*l.* to 95*l.*; ditto Lake Superior, 94*l.* to 114*l.*; Mexican and Plata, in bars, 73*l.*; Russian, 89*l.* to 91*l.*; old yellow copper, 62*l.* to 57*l.*; red ditto, 76*l.*; and bronze, 72*l.* per ton. At Paris, English in plates has brought 86*l.*; Chilean, 78*l.* 16*s.*; and Corocoro mineral, 82*l.* 10*s.* per ton. Although the demand for tin is inconsiderable, the

## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

amelioration established recently in prices displays a tendency to maintain itself on the Dutch markets; in Germany, there is little change, and the sales made scarcely exceed the requirements of current consumption. At Rotterdam, Banca has brought 46½ fl.; Billiton, 45½ fl.; and English, 46½ fl. At Paris, Banca has brought 82½ fr.; Billiton, 82½ fr.; and English, 82½ fr. At Havre, Banca has brought 84½ fr.; Billiton, 84½ fr.; and English, 84½ fr. Lead maintains its price well on the German markets, and at Hamburg some orders for steel German for export have come to hand. At Rotterdam, Stolberg has brought 11½ fl. to 12 fl., and German, 11½ fl. At Amsterdam, soft lead has brought 11½ fl. to 12 fl., and Stolberg has brought similar rates. At Paris, the quotation for Spanish saunons has been 207.88, and for French ditto, 207.48, per ton. At Havre, lead has brought 197.16, per ton. The Hamburg zinc market has remained very firm, and at present the demand has sensibly ameliorated. At Paris, rough Silosian has brought 217.16, per ton. At Havre, zinc has brought 217.16, per ton.

During the exercise 1865-66 the Hoerde Mines and Ironworks Company realised a nett profit of 391,800 thalers, after making large redemptions and deductions. Of the nett profit of 391,800 thalers, 101,725 thalers were carried to the ordinary reserve, and 290,075 thalers were applied to the distribution of a dividend of 10 per cent. In consequence of the want of experienced miners the collieries of Royal Saxony produce less and less coal, and the natural consequence is an increase in the price of coal. The extraction of the Potschappel Collieries Company declined in its last working year to the extent of one-tenth; the nett profit realised by the company was 11,571 thalers, which admitted of the distribution of a small dividend—3 per cent. for the year. The Belgian General Company for Lighting and Heating by Gas sold during September 11,650,677 English cubic feet of gas, as compared with 10,703,328 English cubic feet in September, 1865, showing an increase of 947,351 English cubic feet in favour of the current year; this concern has now works in operation at Prague, Tournai, Louvain, Charleroi, Cheminot, Rimsin, and Sienna. The revenue of the Paris General Company for Lighting and Heating by Gas increased in September to the extent of 13.19 per cent., as compared with September, 1865. In the first nine months of this year the increase in the company's revenue was 45.044, or 6.06 per cent., as compared with the corresponding period of 1865. The last dividend of this company was at the rate of 21 per cent. per annum, and the 20th shares now stand at 637. to 641. each.

As regards Prussian mining, we may note that express trains for the conveyance of coal have been established on some of the Prussian lines for a considerable time past. The direction of the Cologne and Minden Railway has adopted a similar measure on tariff conditions which have been in operation since July last. Further, the minimum quantity, which had been fixed at 50 tons, has just been reduced to 30 tons for express coal trains for the South. These conditions are very advantageous for the conveyance of Prussian coal. An advance in prices has been decided on by the direction of the Royal Prussian Collieries of the Sarre, and came into operation on Nov. 1. On the Lonsenthal coals the advance in prices will be 1s. per ton; on all other descriptions the advance will be only 3½d. per ton. The price of coke has been fixed at 2s. per ton. The coal of the Ruhr, which has been tried for some time past by industrialists of the Liège basin, continues to enter Belgium in rather large quantities. A ship has just arrived at Brussels with coal from the Ruhr basin; her cargo, to be more precise, proceeds from the collieries of Ahlbusch, near Gelsenkirchen. This coal is being loaded on trucks intended for the Clabbeck Works; 15 other ships will follow, it is stated, the one which has just arrived.

## MINING, METALS, AND MINERALS—PATENT MATTERS.

By M. HENRY, Memb. Soc. Arts, Assoc. Soc. Eng.

The bituminous minerals and their products continue to attract considerable attention, and inventive consideration appears to be directed to the obtaining of useful illuminating and heating agents from this extraordinary class of natural productions. Two specifications bearing on this subject may be cited:—BRINJES' specification, No. 756, relates to the distillation of bituminous shales and other like substances. He describes an arrangement of apparatus for the purpose, in which one or more horizontal retorts are used, and through these the matters to be distilled are caused to travel from end to end, so that continuous distillation is carried on; the volatile products pass off into a condenser; the retorts may revolve continuously in one direction, or move with a reciprocating motion round their longitudinal axes. They are provided internally with spiral ribs when for revolving continuously, but when they are to receive circular reciprocating movement they are divided by double-inclined projections and annular flanges into compartments, communicating by openings in the flange opposite the projections. MCKENZIE'S specification, No. 769, relates to the obtaining of illuminating gas and oil, by combining bituminous coal with shale oil or other mineral oil, and in subjecting the mixture to distillation or desolvent at various heats. The patentee excludes from the term "coal" minerals, lignite, and anthracite. He prefers to use crude shale oil or petroleum. A patent has been taken out by BRACHER and GILLOTT, Chapeltown, near Sheffield, for machinery for cutting, mining, and working coal, minerals, stone, and other earthy matters. In this machine they employ one or more cylinders, containing pistons driven by air, gas, or other motive elastic fluid; these pistons carry cross-heads, in which the cutters or tools are fitted. These are so arranged that those connected with one cylinder may be made to cut or pierce more deeply than those connected with the preceding cylinder. The motive agent which has produced the forward stroke of the piston of one cylinder is conveyed to another cylinder, and allowed to expand and produce the back stroke of its piston. There are also arrangements for making the cutters repeat their strokes on the same section of material, and pierce to the required depth before the machine moves forward. The cross-heads or the cutters are formed with joints and retaining springs, to allow the cutters to move out of the cutting line while the machine is moving forward. Elastic plates, washers, or blocks are fitted in a hollow in the piston, so as to come against projections on the cylinders, in order to reduce the effect of concussions. The cylinders are mounted in frames, which receive horizontal sliding to-and-fro motion, and are connected together with gearing, so that the under or main frame may be turned on a centre when the cutters are to be changed or removed. The frame is attached to a carriage, which travels on guide-rails or bars on the floor. Direct action is communicated to the pistons, cross-heads, and cutters, by working their valves or taps by a revolving shaft, with cams or tappets; the piston-strokes are made to alternate, to reduce result. HEXTON'S patent, No. 798, relates to the conversion of cast-iron, or pig-iron into steel. He proposes to act upon such iron while it is in a molten state, by means of nitrate of soda or nitrate of potash, contained in small chambers within the receiver of the molten metal, or in suitable position for being acted upon by the molten metal.—BAKEWELL has patented, as a communication from J. S. Seaman, Pennsylvania, improved apparatus for rolling and straightening metal rods and tubes. He uses a pair of rollers revolving in the same direction without touching, each having a groove or grooves of an arc shape, and combined with a gutted guide-box or its equivalent; the rods or tubes pass through the rollers obliquely, and a rectilinear bearing surface is given on each roller. The rods or bars are compressed between two straight surfaces, and, at the same time, they are caused to revolve on their axes by the action of the rollers, so that they are reduced and shaped, and also compressed and straightened, by one operation, and by this mode the grain of the metal is twisted or formed into spiral lines, while the surface is rendered cylindrical. The rods or bars are compressed between parallel revolving bearing-surfaces, of greater length than the tangential bearing-surfaces, by being passed between grooved cylindrical rollers at an angle to each other, so that the rollers will revolve in opposite directions. For force-pumps describes a cylinder, having at each end and at an under side an induction passage for the admission of water from the supply. To this induction opening is fixed a suction or supply pipe, having a lifting-valve in a chamber forming part of the cylinder at a part where the pipe is fixed, so that the valve may be readily attained. At the upper side and at each end of cylinder is an outlet passage; over each outlet passage is a valve opening outward, and a delivery-pipe is connected with each passage; hence there are two suction-pipes and two outlet-pipes—one of each at each end. When the cylinder is upright the lower induction valve-chamber forms part of the lower cover of the cylinder, and the induction-pipe of the upper end is fixed to a valve-chamber connected with the upper cover. The outlet-passages and valve-chambers are at the side of the cylinder.—GHISLIN'S specification for preparing peat, No. 779, relates to a treatment of peat in such manner as to produce a plastic compound, capable of being manufactured into various useful articles, by stamping, moulding, embossing, or rolling. For this purpose, he drives out the watery particles by pressure, heat, or otherwise, and mixes with the peat one, or other, or several of the following materials—ground or reduced sea-weed, gums or gum resins, or other resins, bituminous, aluminous, gelatinous, fatty, oily matters; also, chalk, talc, sulphur, and siliceous or other matters; also, waste fibrous and woody substances, and, in certain cases, metallic oxides, ochre, alum, or the like.

The following recent Applications for Patents may be cited:—No. 2797, HUNTER, excavating and mining machinery.—No. 2810, BOUNFIELD (communication from Perkins), preparing sheet-iron plates for being coated with zinc, to produce galvanised iron, and for imitation of Russia iron.—No. 2819, CLAY and BOWATER, utilising Bessemer and other steel and iron scrap.—No. 2821, WILLIAMS, fastenings and backings for armour-plates (communication from Gregory).—No. 2825, SHORTHROUSE and PERROUSE, recovering tin from waste scrap (communication from the use of pickle, from which is recovered copper or other metals held in solution).—No. 2829, GREAVES, apparatus for facilitating unloading and delivering coal, stones, &c., from vessels.—No. 2842, HOLMAN, pumps.—No. 2843, FROST, LEATHER, and NELSON, auxiliary smith's fire.—No. 2847, HARRIS, producing, distilling, and refining hydro-carbon and other oils from shale, Cannel coal, peat, lignite, or bituminous minerals.—No. 2848, CALVERT, heating.—No. 2851, ROBERTS, artificial fuel.—No. 2857, PLAYER, mining or felling for puddling-furnaces and containing vessels in which pig or crude iron is converted into wrought-iron or steel.—No. 2858, CLAUDET, treating waste solutions from burnt cuprous pyrites.—No. 2866, BROOMAN (communication from Dornoy), puddling.

Any opposition intended to the following Notices to Proceed must be entered on or before Nov. 27:—No. 1701, MILROY, excavating apparatus.—No. 1703, LARK (communication by Bell and Fell), white lead.—No. 1823, FOUNNEL, iron and cast-iron.—No. 2192, HUNTER and COOKE, cutting slate, stone, marble, and minerals.

The following Patents are sealed:—No. 1291, YORK, iron and steel.—No. 1362, HARRISON, hammering sheet metal cylinders and articles.—No. 1427, TOMBS, metallic bedsteads, &c.—No. 2230, DAVIS, utilising limestone.—No. 1299, FIDLER, holding, cutting, getting, and drilling coals and minerals.—No. 1350, PROSSER, treating metals, metallic ores, and minerals.

SALT MINES.—It is claimed that the salt mines of Nevada are the best in the country. One bed is reported to cover 52,000 acres, yielding 2,000,000 bushels annually of salt, 95 per cent. fine. As deep as any work has gone the bed is solid rock-salt, and from a depth of 35 ft. the salt water comes so rapidly as to interfere with the work. The salt water wells up to the surface, and overflows the large floor, from which the fine white salt is continually gathered.

PROSPER UNITED.—These important mines are looking well. There have been sold this week 402 tons of copper ore, and the next monthly sampling is expected to be larger; this is independent of the tin sales.

PRINCE OF WALES.—They have intersected the lode west of cross-course in the 45, but not sufficient done to say much of its size and character, being in close proximity to the cross-course. So far as seen it is from 3 to 4 ft. wide, composed of spar, capel, muddle, peach, and good stones of yellow copper ore, and looks promising to be of great value, as it leaves the influence of the cross-course.

MINING IN PLYMOUTH (Devon).—Living in Ridgeway, and examining the different mines of the neighbourhood, I have often thought it singular that I have not seen any account of our nearest mine in the Journal—geologically, and the ancient researches looming up would naturally make a person think that the mineral riches of this part of the country could not yet be perfectly understood. Since the WHEAL MARY HUTCHINGS Mine has been opened it has proved that no tin ore in Europe could be produced of a richer quality, and the mine itself has been worked to advantage, considering its appliances. Since February last about 18 tons of rich tin ore has been sold, in addition to which there is a large quantity at the surface ready for stamping, taken from the back driftage of the adit level only. This adit level is now entering the foot of Hemerdon Hill. The present point of driftage is giving 22 fms. of backs, and will materially increase as it advances. Hemerdon Hill is a detached boss of granite, not at all continuous with the Dartmoor range, and has already proved very rich; and there is no doubt this neighbourhood, mineralogically speaking, will show itself peculiarly rich. I cannot close this without thanking the worthy, gentlemanly manager, Capt. Edwards, for the ready way in which he furnishes information to any enquirer. I will forward some account of other mines in the neighbourhood.—A GEOLOGIST.

SOUTH OF SCOTLAND.—The market price of progressive mines is not always an indication of their value. When not "rigged," they too often are neglected. None have suffered more from the recent panic, and undeservedly so, than the shares of the South of Scotland Mines. The plant of machinery is complete and paid for, except a crusher which has to be attached to the water-wheel, and the expenses, 2000. per month, are being devoted to the development of the mine in depth. The engine-shaft is down to the 30, and a level is now being laid on to get under the 200 ft. level. The level is now 18 ft. level above, worth each from 2 to 2½ tons per fm., while the slope in the back of the 18 ft. level is worth full 3 tons per fm. A cross-cut is also being put out from the flat-rod shaft, and the walls of a lode are now reached, which in the adit was 4 ft. wide, yielding large rocks of gossan and lead. Few mines present such appearances at the depth, and still the shares stand in the Glasgow market at 1s. 6d. to 2s. (17s. 6d. paid). Surely this is a matter worthy of the attention of those who look somewhat of lead mining. A lode in the 18, worth 400. per fm., and stopping for 4½, is not to be overlooked; where this is found more will be with.

WEST CHIVERTON.—The lode in the 90 has improved, and is now valued at 800. per fathom. The 100 has also improved, and is turning out the best level in the mine. The prospects generally are better than at any former period. At Chiverton, Cookney's shaft is valued at 1 ton per fathom, and the 100, both east and west, is to value. Rapid progress is being made in the building of the new engine-house, and as soon as the engine is erected good profits may be relied on.

EAST WHEAL LOVELL.—An important improvement has taken place in the Turnpike lode, which is valued at from 200. to 250. per fathom, and only 24 fms. from surface. There is every indication that large quantities of tin will be returned at an increased depth. This is altogether of the rich north of south lode.

NORTH TREKERRY.—Looking at the sound position of the mine, and the splendid prospects, both ascertained and speculative, dividends may be fully expected to commence next month, and there is little doubt they will be for a permanent and steadily increasing character, even with copper at the present low prices.

SOUTH DAREEN.—There have just been sold 60 tons of lead ore for 1078s., and 80 tons of copper ore are sampled. It is expected that in about ten days another 30 tons of lead ore will be sampled.

CALDBECK FELLS MINE.—The prospects continue to open up as satisfactorily as ever. The 30 and 80 fms. levels west have again improved—other places just the same as last reported. We sampled yesterday 70 tons of ore, 60 of which is good blue lead, and if fine weather continues the quantity at our next sampling, which will take place in about a month from this date, will be still further increased. The walls of the engine-house for the 60-inch pump will be up in a week or ten days, and we shall very soon after that time be ready for heaving in the engine. The dressing-machinery is working first-rate, and doing its work admirably.—S. KITTO.

WEST FRANCES.—A considerable improvement has taken place in the 95 west, now valued at 350. per fathom. In consequence of this, and the generally improved state of the mine, the costs are nearly met. A fair price for tin would put West Frances in a profitable condition.

SHROPSHIRE MINING COMPANY.—On Monday about 6 tons of copper ore were sold from this mine; the best parcel to the St. Helen's Smelting Company, at 12l. 7s. 6d. per ton, and the second parcel to Messrs. Sims, Williams, and Co., at 12l. 19s. 6d. per ton. There are about 40 tons more on the mine ready for sale. It will be remembered that the company for working this mine was formed during the current year, under the management of Captain John Kitto. The prospects are said to be extremely favourable, and the probability is that it will soon become a first-class dividend-paying mine.

EAST BOTTLE HILL.—In consequence of the discovery recently made on the copper lode in Bottle Hill, and which is still improving, they have commenced operations on the copper lode in East Bottle Hill. The lode runs through the set upwards of a mile in length, and seen at the same depth, and copper ore taken therefrom worth 250. to 300. per ton. This lode can be worked to the adit level, which is already driven to a depth of from 50 to 60 fms. without the aid of pumping machinery. The tin lode is still looking well, and holds its own and quality of tin. The large wheel and stamps are being erected with all possible speed, and are expected to be set at work in about a month from this time, when an abundance of tin will be prepared for the market, and the great discovery of copper in the adjoining mine is of importance to this set.

WEST WHEAL KITTY.—The late valuable discovery of tin in this mine has caused considerable attention to be directed to it. Further improvements are daily expected, which are likely to increase the value of the property.

WESTMINSTER.—An important feature connected with this company is the deep level being driven through the district. In about 3 fathoms further driving this level will cut the Pant-y-goel lode, and it is expected, will unwater the whole of the eastern part of Westminster for 100 fathoms deep, and which portion of the set both Captains John and William Kitto state will prove a most valuable mine.

OLD GUNSLAKE is likely to be worked with spirit, the outstanding debts have all been paid, and the mine set to work under new management. Captain Henry Rickard, a good practical man, is to be the manager.

WHEAL CRELAKE.—By the report in last week's Journal, it appears that the lode in Crelake is improving, and now yielding one ton per fathom. The disturbed ground under the bed of the Tavy River is now passed through, and settled, ground reached, and who that inspects the section but must see that, reasoning by analogy, at least another of those valuable shoots of rich ore which have distinguished this mine must be near at hand; indeed, the appearances in the mine indicate this. The new ground to the west has hitherto disappointed expectations, but under the bed of the river it has been disturbed by slides. As the valley is quite flat, it might be expected that the bed of the stream would be in the poorest ground. Now, the ground is settled, and the lode is less disturbed than it was close up to the bed of the stream, from whence large returns of ore were made—upwards of 50,000. worth. Large profits would have been realised, but the returns were lost in working the north and south lead lode, and in exploring the ground to the east. Now, when it is considered that these drains are stopped, that the shaft is down to the 116, and all machinery complete, it must be apparent that but a portion of former discoveries is required to cover cost and make profits. The future of this mine demands attention at present.

GLASGOW CARADON CONSOLS.—Brokers who write on the Caradon district talk of the three Caradons—the West, the South, and the East Caradon. They ignore the Glasgow Caradon, bounding East Caradon, and having the rich shallow shoots of East Caradon dipping into its ground. This mine is not a market mine, but the time is fast approaching for it to take its place. The ends approaching East Caradon have not of late been quite so good, but a continuous shoot of ore worth 5l. to 30l. per fm., has been passed through, and now the 52 is worth 6l. per fm., the 65 worth 12l. per fm., and the 78 approaching the ore gone down in the 65. The lode in the 65 is 5 ft. wide, with black ore and prlan, very similar to what distinguished the caunter in the 50 in East Caradon, when worth 120l. per fm. The piece of ground just being entered upon lies in a slight hollow, and has the East Caradon ore dipping into it from the west, so there can be little doubt that valuable discoveries may soon be made. Meantime, the slopes are yielding fairly, and the returns will be increased as the 78 gets into ore ground.

CENTRAL MINERA.—There appears every favourable indication of this mine ultimately becoming both remunerative and lasting. The present returns are about sufficient to meet the expense of working, and it only requires an improvement in the 40 yard level west, of which there is a good prospect, to bring it into a paying condition.

THE LARGE EXPORT AND IMPORT OF SILVER AND GOLD TO INDIA.—At Lloyd's, new insurances continue to be effected upon gold and silver specie coming from Calcutta, Bombay, &c. Late insurances were effected upon 90,000. of gold coming from Calcutta. The first operation of the kind in gold that has taken place for a considerable period. Gold and silver are usually sent from here to India, but the metals are now attracted to this country in consequence of the difference in the exchanges. The value of silver at the present time in India and the colonies may be estimated from the subjoined statement. Much of the silver sent to Bombay has been lately involved above its Mint value. This has become so serious an evil that the consignees have found it necessary to combine in taking steps to protect themselves against the loss. It has been computed that the excess of the invoice over the real value has lately averaged more than ¼ per cent., and that the practice of reporting silver as being of a better quality than it actually is is greatly on the increase at Bombay. It appears that all silver assayed in France is invariably reported above its real quality. This has, in fact, for many years been the system, as is known and acknowledged by all dealers in bullion. The assayers in London have hitherto escaped this stigma, but it would seem from present experience that the same pernicious system known to the Paris assayers has been lately adopted by or forced upon some one or more of the London houses, and hence a loss of even ¼ per cent. has been recently sustained at Bombay upon English silver. The Bombay importers are now compelled to submit to this extortion, and have no redress. The gainers at the Indian Importer's expense are the refiners, the brokers, or the assayers. The Bombay importers of bullion have, therefore, made a stand by refusing to accept silver on French assay, or by declining to receive bars bearing brands which have attained this unenviable notoriety. The East Indies Import the largest amount of silver of any bullion market in the

world, consequently the abuse to which it has been subjected will not be long tolerated. It will have been noticed that instead of India importing bullion it has largely exported that commodity. Whether this will right the matter will be best understood by the professed financier.

The following are the Government Returns of the export of articles identified with mining, the produce and manufacture of Great Britain, for the nine months ending Sept. 30, 1866; and also as compared with the nine months ending Sept. 30, 1865; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE NINE MONTHS ENDING SEPTEMBER 30.	1865.	1866.	Increase.
Coals and culm .....	£3,306,224	£3,858,640	£ 552,416
Hardware and cutlery:—			
Surgical instruments .....	£285,683	£388,668	102,985
Agricul. implements .....	400,614	381,803	18,811
Other sorts .....	2,451,911	3,137,698	685,787
Machinery:—			
Steam-engines .....	1,458,842	1,160,585	298,257
Other sorts .....	2,403,179	3,862,021	1,458,842
Total .....	£10,305,853	£10,522,358	216,505
Metals:—Iron—Pig .....	1,173,290	1,163,534	9,756
Bar .....	1,962,108	1,737,128	224,980
Railroad .....	2,535,714	3,209,426	673,712
Wire .....	324,559	343,815	19,256
Ditto telegraphic .....	118,650	293,675	175,025
Castings .....	578,129	569,145	8,984
Hoops .....	1,140,346	1,359,687	219,341
Wrought .....	1,827,279	2,051,249	223,970
Old .....	6,461	9,266,536	30,875
Steel .....	517,784	428,054	89,730
Copper—Unwrought .....	340,733	428,054	87,321
Wrought .....	1,752,653	1,467,921	284,732
Other sorts .....	128,219	2,221,625	2,093,406
Brass .....	167,364	163,107	4,257
Lead—Pig .....	394,421	521,566	127,145
Ore .....	129,196	523,617	394,421
Tin—Unwrought .....	378,378	287,529	90,849
Tin-plates .....	1,096,582	1,476,557	379,975
Zinc .....	59,107	98,103	38,996
Grand total .....	£24,536,846	£26,866,994	£2,330,148
Less decrease—Machinery, 608,458; copper, 181,711; brass, 4257; tin unwrought, 90,849. =			785,275
Total increase .....			£2,330,148

The following are the Government Returns of the Imports and Exports of Gold and Silver Bullion and Specie for nine months ending Sept. 30, 1866, from and to the undermentioned places, showing the respective results in favour of and against this country; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE NINE MONTHS ENDING SEPTEMBER 30, 1866.	Imports.	Exports.	Imports over Exports.
Australia .....	£1,640,415	£ 40,810	£1,599,605
British India .....	198,202	1,001,187	802,985
British South Africa .....	9,552	4,507	4,045
British Columbia .....	—	—	—
British North America .....	149,984	73,363	76,621
Brazil .....	289,957	880,093	590,136
Egypt .....	124,327	2,788,537	2,664,210
France .....	4,710,273	9,433,702	4,723,427
Gibraltar .....	82,645	3,370	79,275
Hanse Towns .....	1,315,487	1,096,541	218,946
Holland .....	112,784	643,941	531,157
Malta .....	32,713	—	32,713
Mexico, &c. .....	4,634,873	348,288	4,286,585
Portugal, &c. .....	483,656	108,234	375,422
Russia .....	158,606	8,597	150,009
Spain .....	22,359	153,893	131,534
Turkey .....	98,190	—	98,190
United States .....	9,298,988	1,005,181	8,293,807
West Africa .....	192,715	46,808	145,907
Other countries .....	1,659,550	757,560	901,990
Total .....	£28,126,262	£18,513,972	£9,612,290
Less exports over imports .....			9,002,292
Balance .....			£10,612,290

SOUTH-EASTERN RAILWAY.—The directors have appointed Mr. T. A. Chubb to the secretaryship of the company, recently vacated by Mr. Samuel Smiles. Mr. Chubb has been an officer of the South-Eastern Company for above 20 years, and is for many years past discharged the duties of principal accountant to the company.

RAILWAY CALLS.—The amount falling due in Nov. is 772,528l., making the total called in the eleven months of the present year, 13,048,434l.

RAILWAY INVESTMENTS.—Lelean's "Stock, Share, and Finance Register" for the present month, just published, contains the examination of the whole range of investments, especially of railways; and, with a comprehensive review of the position and prospects of the holders of that species of stock, gives a tabulated exhibition of the average dividends for the last five years of 57 British and American lines. The "Register" is enlarged by four pages, and contains a mass of information that must be very useful to investors.

Messrs. W. L. WEBB and Co., of Finch-lane, in their Circular, have the following remarks respecting gas, dock, and water-work shares:—"Although there has not been any material fluctuation in the prices of gas, dock, and water-work shares since our last report, there is evidently a great disposition on the part of investors to return to the old securities, which offer good rates of interest combined with safety, rather than risk their capital in railway and financial adventures, after the late disclosures. Lately we have noticed a steady increase in the demand for shares in a few of our metropolitan gas companies, consequently prices have improved. Imperials have been taken at 7½d. 3d., and the last issue of 100. shares at about ½d. prem. East and West India and London Dock stocks remain steady, 130 to 132 and 67 to 69 respectively, as also Southampton Dock stock, which has been taken at 65. East London Water-Works stock remains quiet, owing to a few sellers, who were unable to realise, there being no buyers at present. Shares in the old-established insurance companies are rather in demand—Phoenix, Fire, Eagle, and London Provincial Law."

VALUE OF PROPERTY IN THE METROPOLIS.—An elaborate table, showing the increase in the rateable annual value of the property in the Metropolitan area, from 1856 to the present time, has been forwarded to us by Mr. POLLARD, of the Metropolitan Board of Works. The figures for each year are given, as also the value of the property in the City of London and the metropolitan parishes within the jurisdiction of the Board for rating purposes. The total annual value of property as per county rate, or like basis, is 14,524,532. In the present year, the corresponding total for 1866 having been 11,283,663. The rateable annual value now in preparation for the main drainage rate, but not yet approved by the board, was 15,232,767. In the present month of October. This, at 3d. in the pound, would give 190,659. 11s. 9d., or 49,613. 16s. more than a corresponding rental would have given in 1856.

PEAT FLOORCLOTH.—The object of the invention of Mr. T. G. GHISLIN, of Hutton-garden, is so to treat peat by chemical and mechanical operations as to bring it into a state in which it may be manufactured into various useful articles, either of a solid, rigid, or of a flexible character. He takes any of the common kinds of peat, and having expelled therefrom, either by the application of pressure, heat, or otherwise, such of the watery particles as can be easily removed, he mixes with it ground or comminuted seaweed, with the addition, if required, of any suitable gums or gum resins, such as India-rubber, gutta-percha, or other substances of that class, or in place thereof, or in addition thereto, may be added resins natural or artificial, bituminous substances and products of the same, such as pitch or asphalt, paraffin, stearine, or other oily and fatty matters. To give a body and firmness to the mass, chalk, talc, sulphur, siliceous, and other earthy matters may be added. Waste fibrous and woody substances may be incorporated with the other ingredients when it is desired to form sheets of the material as for floorcloths, and if the surface is intended to be printed metallic oxides, such as white zinc, oxide of iron, or ochre, alum, and other analogous ingredients may be added. The proportions in which the several ingredients are incorporated with the peat must depend mainly upon the character of the peat and the purpose to which the mass of prepared peat is to be applied when made; for instance, some peats will be found to contain so much unctuous, fatty, or bituminous matter, and some seaweeds so much mucilaginous or gelatinous matter, that the addition of more bituminous or gelatinous matter will be unnecessary. On the other hand, the peat and seaweed may want fibre to give it strength and tenacity; waste fibrous substances, such as cotton, hair, wool, and tow may be incorporated in such cases. In other cases the peat will be found abundant in fibre, but deficient in adhesive substances. Again, for some purposes hardness and rigidity will be required, as for moulding picture frames, or producing articles which are to be ornamented by embossing, such as book covers. For floorcloths and other coverings or articles for which the mass is to be rolled out into thin flexible sheets, a larger proportion of fibre will be required than for solid and rigid articles.

SALE OF A MINE BY PUBLIC AUCTION.—Mr. C. Thomas sold by public auction, at the London Tavern, on Thursday, by order of the liquidators, the New Wheal Martha and plant, consisting of one 60-inch cylinder pumping-engine, with three boilers, &c., one drawing-engine, with crusher, and all the other plant and machinery belonging to the mine. The plant and machinery was valued at 2078l. The parcel of copper ore dressed on the surface was not included in the sale. The lot was started at 3000l. and was ultimately knocked down at 5300l. Mr. C. Thomas then submitted several lots of mine shares, those sold being a. the ruling market prices.

SHOCKING COLLIERY ACCIDENT.—On Tuesday, a singular accident occurred at a colliery at the Ince Hall Company's East Pit, near Wigan, where they were driving a tunnel in advance of the colliers. They charged a shot, and were attaching the fuse, when an explosion took place, inflicting, it is feared, fatal injuries on both men.

## BRITISH MINES.

ST. JUST UNITED MINES.—J. Carnew, Peter Casley, Nov. 7: We extended the 10 and 20 south of engine-shaft, on the Guide, with all speed, to the ground. In clearing the 10 east from engine-shaft we have discovered a vein ground. We have set one pitch on tribute, and we expect to set one

NERA UNION.—Wm. T. Harris, Nov. 8: Douglas's shaft is now 11 yards to the 40 yard level; the ground is of the same character as last report, and factory progress is being made. The ground in the cross-cut in the 40 yard level from this shaft, is exceedingly hard, and only slight progress is at present made.—Brabner's Shaft: The ground in the cross-cut, to the 80 yard

Let you know how it looks.

**SOUTH CONDORROW.**—J. Vivian and Son, W. Williams, Nov. 3: We have completed the plat in the 61, at King's shaft, and shall commence sinking the 62 in the beginning of the coming week. In the 61, east of King's shaft.





At the United Mexican Mining Company (half-yearly) meeting on Wednesday (Mr. C. Morris in the chair), the operations of the company in Mexico for the six months ending June, resulted in an excess of outlay of £13,538. The report of the directors was adopted, and power was given to the directors to act upon the suggestion made in their report. Details in another column.

The Bank of England return for the week ending on Wednesday evening was rather favourable than otherwise, and as the total reserve now stands at considerably over 8,000,000, the directors decided to lower the minimum rate of interest to 4 per cent. In the ISSUES DEPARTMENT there is shown an increase in the notes issued of 174,360l., represented by a corresponding increase in the coin and bullion on the other side of the account. In the BANKING DEPARTMENT is shown a decrease in the "other deposits" of 709,280l., from which must be deducted an increase in the "public deposits" of 454,561l.; an increase in the "rest" of 12,901l.; and an increase in the "seven day and other bills" of 16,139l.—483,901l., leaving an actual decrease on the liability side of 225,379l. On the asset side there is shown a decrease in the "other securities" of 748,467l., and an increase in "Government securities" of 166,954l.—642,514l.; and deducting from this the decrease of 225,379l. on the other side, there remains an increase on the total reserve of notes and coin in the banking department of 417,135l.

On the Stock Exchange, Mining Shares, although not largely operated on during the week, have been well supported in value. The following quotations were officially recorded in British Mining Shares:—East Caradon, 5½; Great South Tolgus, ½; Great Wheel Vor, 1½, 16, 16½, 16½; Chiverton, 6½; Tincroft, 7½. In Colonial and Foreign Mining shares the prices were: Port Phillip, ¾ to 1; Scottish Australian, ¾ to 1; Cobbe, 2, 2½; Fortuna, 2, 2½; Frontino and Bolivia, ¾; Pestarena, 2, 2½; St. John del Rey, 52, 52½, 52½, 51½, 51½; Val Sassam, 1½; Washoe, 1½, 1½, 2, 2½, 2½; Chontales, 2½.

COAL MARKET.—The fresh arrivals this week number 112 ships. On Monday and Wednesday the market for house coal was less active, and the top price was reduced to 21s. 6d. per ton; but this stimulated business, and to-day the price returned to 22s., the market closing firm. Hartley's have been in good demand, and quote an advance of 3d. per ton. Haswell Wallend, 22s.; Hetton Wallend, 22s.; Hartlepool Wallend, 22s.; East Hartlepool, 21s. 6d.; Tees Wallend, 21s. 3d.; Eden Main, 19s. 9d.; Hetton Lyon's Wallend, 19s. 6d.; Tunstall Wallend, 19s. 6d.; Pittington Wallend, 18s. 6d. Unsold, 4: 40 ships at sea.

COAL IN NATAL.—Mr. J. Berghel, member of the Legislative Council of Natal, writes:—"A reference to the map will show at a glance the vital importance to the steam navy of this country of a certain and unlimited supply of coal on the South Coast of Africa—the highway to India. It may not be uninteresting to your readers to know that in the year 1863, Mr. David Smith, a practical coal and mining engineer, proceeded from this country to Natal, in order to ascertain the resources of such coal fields as there were in that colony. The following is an extract from the petition which Mr. Smith subsequently presented to the Legislative Council of Natal:—"Your petitioner has, since his arrival here (in Natal), examined a very considerable portion of the colony, and has ascertained the existence of a very extensive coal field, of excellent quality, and presenting vast facilities for being economically worked. In other words, to utilize these valuable resources of the colony, a line of railway is indispensable, and such a line of railway, besides becoming the high road to the interior of Africa, would bring within easy reach of the seaboard of Natal districts abounding with rich copper and other valuable mineral deposits, while the moral effect which such a work would produce upon the minds of the native population of the country it is impossible to over-estimate. The question of constructing such a line of railway has year after year engaged the attention of the Legislative Council of Natal, and a law was, in fact, passed some two years ago granting unusually favourable concessions of land and other privileges to parties who should undertake and complete the work. The efforts, however, made with this object from time to time have been hitherto abortive. The late Secretary of State for the Colonies, Mr. Cardwell, whether rightly or wrongly, disallowed the law passed by the Legislative Council, to which I have referred. To me, however, it has always appeared that the question of a supply of coal on the Southern Coast of Africa is one of Imperial rather than colonial importance—partly for the reason I have already mentioned in connection with the native population, but chiefly from the absolute necessity which would exist, in case of war between England and any other naval power, that this country should have a ready, certain, and unlimited supply of coal for its steam navy in the vicinity of the Cape of Good Hope. Up to this time the colony of Natal has been of no expense to the mother country, nor is it the wish of its inhabitants that it should be so. It has hitherto paid its own way, with a revenue showing, by the official returns, an average annual increase of more than 30 per cent. for the twenty years previous to 1865. It has had no war, and has no debt, but what has been contracted for works of public utility. This, in regular course of liquidation by means of a sinking fund, specially created for the extinction of the debt at the time of its contraction; the colony, however, has but a small white population, and its immense resources are as yet but very imperfectly developed. A work, therefore, of the magnitude I have alluded to may, I conceive, fairly claim from the mother country that assistance, derived from its credit alone, which may be safely and most beneficially given."

THE COPPER TRADE.—Messrs. Vivian and Younger (Nov. 9) write:—"Prices have remained much the same as last week, and the business done has been limited. Excepting some considerable sales of Chilli bars at a trifle under 75l. spot cash, usual terms for continental account, nothing worth reporting has taken place. The general trade is scarcely so good as it was."

THE IRON TRADE.—Messrs. Shaw and Thomson (Nov. 7) say:—"The iron trade continues to be depressed, chiefly by the shattered state of the ship-building trade, and the general inability of railway companies and contractors to come largely into the market. The export demand is of a fair character, and a good amount of business has been done during the past week in bars, angles, sheets, and hoops. The wages question continues to be the leading point of thought in connection with the iron trade, and great attention is directed to it, because the future prosperity of the trade is largely concerned in its issue. Many men are breaking off from the Union, and going to work in the North of England at the reduction, while their leaders are straining their utmost to prevent them. The trade with British North America promises to be very good for all articles except pig-iron, and orders are coming forward very satisfactorily. The Indian and Egyptian markets are taking a moderate supply of iron. Shipments of rails to America are upon a moderate scale."

The production of gold in New Zealand is now very important, that colony having thus far exported upwards of 10,500,000 sterling of the precious metal. Below we give an official return, showing the quantity and value of gold exported from New Zealand for the quarter ended June 30, 1866, for the year ending June 30, 1866, and the total exported to the same date:—

Produce of gold in	During quar. ended June 30, 1866.		During year ended June 30, 1866.		Total from New Zealand to June 30, 1866.	
	Oz.	£	Oz.	£	Oz.	£
Auckland.....	2,070	7,251	5,419	17,197	17,440	59,663
Marlborough.....	122	438	2,418	9,373	32,352	126,594
Nelson.....	32,654	126,532	135,277	524,992	221,323	857,720
Canterbury.....	163,982	403,026	390,237	1,512,263	455,895	1,772,282
Otago.....	45,098	174,405	203,890	789,918	1,983,844	7,687,400
Southland.....	1,693	6,211	1,625	6,296	1,625	6,296
Total.....	185,351	717,557	738,817	2,859,249	2,713,484	10,506,058

TIN MINES, AND THE TIN TRADE.—We have good reason to believe that the price of tin will shortly advance; this, we need hardly say, will be of great benefit for all our tin mines.

CARNARVONSHIRE CONSOLS.—The applications for shares in this company continue to come in from both town and country, but the applicants will have to pay the penalty of their procrastination. Every share was allotted on Nov. 2, the applications, as we last week stated, far exceeding the number to be issued. They are now par to 1 prem., and will, no doubt, soon be higher. The company took possession of the property on the 6th, and Capt. Kitto seems to have lost no time in making the necessary preparations for extending the present workings, and for driving the deep adit to under the mines. They have already commenced to drive the 20 east and west, on No. 1 lode, in Coedmaur Pool Mine, which has already returned considerable profits, and Capt. Kitto is looking for early and good discoveries in this new ground.

REFUSAL TO WORK IN A FIERY MINE.—Three men, members of the Miners' Union, have been convicted by the Dewsbury West Riding Justices for having refused to continue to work in a colliery at Mirfield, belonging to Mr. Joe Skeard, mining engineer, &c., which they stated was filled with fire-damp, and was exceedingly dangerous. Mr. Chadwick, solicitor, prosecuted, and said, though the defendants were willing to return to their work, the prosecutor would not allow them, because, under the instructions of the Miners' Union, the miners in the locality were in the habit repeatedly of neglecting their work, and he was determined to punish them. The men all said they were afraid to work in the pit because it was so full of fire-damp. They were compelled to work eight yards from the draught of air. This was proved by witnesses, but the defendants were each ordered to be imprisoned for 14 days.

ATTEMPT TO EXPLODE A BOILER.—On Monday morning, when the fireman at the Agnes Main Colliery, Barnsley, went to attend to his fires to get the steam up, he found that the sluice-valve had been opened, and the whole of the water run off. The plates of the boiler were red hot, and had the water been turned on before the discovery was made there must have been an explosion, and no doubt loss of life, as several persons were in the immediate neighbourhood of the boiler. A reward of 20l. has been offered for the discovery of the miscreant.

MESSRS. ROBERTSON BROTHERS AND CO., STOCK AND SHAREDEALERS, 16, ABCHURCH LANE, LOMBARD STREET, E.C. Are prepared to BUY or SELL, at close prices, for cash or to, fortnightly settlement, shares in East Wharf, Cliford Amalgamated, Great Wheel Vor, East Caradon, West Caradon, East Wheel Russell, Prince of Wales, Chontales Gold, Atlantic Telegraph, and Anglo-American Telegraph. Telegrams promptly attended to.

THE TRUSTEES of a deceased Gentleman WISH to DISPOSE of his INTEREST in a valuable COAL PROPERTY near MOLD, adjoining Collieries at which the Coal and Canal seams have been proved and worked. For particulars, apply to Mr. T. L. COTTINGHAM, Mining Engineer, Mold, Flintshire.

MEXICO.—A MINING ENGINEER and METALLURGIST, resident in the city of MEXICO, is READY to ACCEPT COMMISSIONS for the INSPECTION of MINING PROPERTIES, and REPORTING THEREON. For particulars, address "J. P. S.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

CLERK WANTED, in a LONDON OFFICE. Must be a good and expeditious writer, and have some knowledge of the Metal Trades. A young gentleman who has had experience in Copper would be preferred, and might find this a good opening. Commencing salary, about £100 per annum. Apply by letter only, stating age, previous occupation, and other particulars, to "H. H.," care of Charles Barker and Sons, 8, Birch-lane, London, E.C.

WANTED, THREE or FOUR GENTLEMEN, to JOIN the ADVERTISER in OBTAINING the CONCESSION from GOVERNMENT of very valuable COPPER MINES in one of the BRITISH POSSESSIONS. Address, "X. X.," at Deacons', 154, Leadenhall-street, City.

WANTED, 1000 shares in North Crofty, 50 Wheel Buller, 100 East Caradon, and 500 East Carn Brea. Full market price given for any of the above. Address, Mr. HENRY JOHNSON, Post-office, Moorgate-street, London, E.C.

WANTED, in each of the following districts—namely, NORTH and SOUTH WALES, DERBYSHIRE, DURHAM, NORTHUMBRIA, STAFFORDSHIRE, GLASGOW, and ISLE OF MAN—a COMPETENT CORRESPONDENT, to give an accurate MONTHLY REPORT of the STATE of the COAL and IRON TRADES, MINING OPERATIONS, &c., of each district respectively, suitable for a first-class Mining and Engineering Circular. Address, "A. B.," MINING JOURNAL Office, 26, Fleet-street, E.C.

WANTED, a PARTNER in a STEAM COAL COLLIERY, in full work, connected with the narrow-gauge railway system, and close to two good shipping ports.—For particulars, apply to D. JONES, Esq., C.E., Swansea.

WANTED TO PURCHASE, REFUSE COPPER ORE, of 2½ to 5 per cent.; LEAD ORE, of 10 to 30 per cent.; BLACK JACK, of 5 to 6 per cent. The above ores are required not for smelting, and will do separately or mixed. Any mining company having any of these to dispose of will please quote lowest price at mine, shipment, quantity on hand, and what is likely to be supplied in future. A large quantity can be taken monthly, and a present order will be given of 100 to 500 tons. The lowest averages would suit the purpose for which the ores are required.—Apply to Mr. THRELFALL, No. 6, Camden-broadway, Camden-town, London.

WANTED, a JIGGING MACHINE, in good working order.—Address, stating lowest price, and where it may be seen, to "F.," MINING JOURNAL Office, 26, Fleet-street, London, E.C.

EDGE RUNNERS.—WANTED TO PURCHASE, TWO PAIRS of STONE RUNNERS, about 35 cwt. stones.—Apply, by letter only, to the Westmoreland Mills, Lamb's-passage, Chiswell-street, London.

COPPER, TIN, &c.—A Young Gentleman, of several years' experience in the Metal Trades, and with established connections amongst Engineers, Brass Founders, and other consumers, is WISEFUL to REPRESENT some FIRST-CLASS FIRMS for the SALE of COPPER, TIN, SELLER, and LEAD.—Address, "J.," box 445, Post-office, Manchester.

A GENTLEMAN having an extensive connection with merchants, manufacturers, and others, would be GLAD to UNDERTAKE the SALE of PATENTED ARTICLES or INVENTIONS, upon commission.—Apply to Mr. W. T. RAWLE, patent and mining agent, 8, Small-street, Bristol.

OREHAMPTON MINING COMPANY (LIMITED).—WANTED, an OFFER for EIGHTY SHARES (at 5s. paid on each) in the above company, also TWENTY SHARES in the COFFEE, COCOA, COTTON, AND GENERAL PRODUCE FREEHOLD ESTATES COMPANY OF VENEZUELA (LIMITED) (£6 paid on each share).—Apply to WM. TAYLOR, Esq., Hexham, Northumberland.

BRECONSHIRE, MID-WALES.—SLATE QUARRIES TO LET, near NEWBRIDGE-ON-WYE.—Apply to Mr. PRATT, Crickhowell.

LANFAIR GREEN AND BLUE SLATE QUARRY.—Manager, T. HARVEY, Esq.—TO BE SOLD, FIFTY SHARES at a very considerable discount.—Address, "N. K. H.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

FOR SALE, FIFTEEN SHARES in SOUTH HERODSFOT (all calls paid), at 5s. each.—Apply to Mr. JACKMAN, No. 6, Union-grove, Clapham, S.

GOOD AND SAFE INVESTMENT.—COAL, IRON, LIME, AND POTTERY WORKS.—Some gentlemen have opened out extensive works in the North, at an outlay of upwards of £40,000, which are now in a most productive state. A public railway is nearly laid to the works, and direct to a seaport. When completed, the profits will be very large and increasing. Owing to unforeseen circumstances, the advertiser has a FEW FREE SHARES TO SELL in the above works. The company is registered under the Limited Liability Act.—Apply by letter, to "A. A.," No. 7, Little Sussex Gardens, Hyde Park.

IMPORTANT TO IRONMASTERS.—FOR SALE, a first-class IRON MINE, where any quantity of ore may be raised (without the use of water or steam machinery), and which is now open. The above being near a good shipping port, a good profit can be made monthly. The present owners will sell the ore to any ironmasters, or the mine. The above offers an excellent investment to capitalists and others, there being no further outlay required, but to commence work, and any quantity of ore may be raised at once. Any further information can be obtained by applying to "C. B.," Post Office, Bodmin.

TO COALOWNERS AND OTHERS.—TO BE LET OR SOLD, with immediate possession, the ROYALTY of TWENTY ACRES of the BEST COAL, 7½ feet band, within three miles of the seaport town of MARYPORT, CUMBERLAND.—Apply, by letter only, to P. LUMB, Esq., 42, Parliament-street, Westminster, S.W.

STEAM ENGINES FOR SALE.—60-inch PUMPING ENGINE, equal beam, 10 ft. stroke, with TWO 10-ton BOILERS; 36-in. CYLINDER SINGLE-ACTING ROTARY ENGINE, 14-ton fly-wheel, with 9-ton BOILER; 18-inch CYLINDER DOUBLE-ACTING ROTARY ENGINE, with drawing gear, with cage, and 7-ton BOILER, the whole in good condition, to be seen at Kelly Bray Mine, Callington, Cornwall.—For further particulars and price, apply to Mr. EDWARD KING, 224, Austin Friars, London.

GALLOWAY'S PATENT CONE TUBES FOR STEAM BOILERS.—The introduction of these vertical taper tubes into the ordinary flued boiler, PROMOTES the NECESSARY CIRCULATION of WATER, and thus INCREASES THEIR STRENGTH and DURABILITY. Their adoption not only adds to the steam-producing power of the flues, but renders the practice of hooping with angle or tee iron rings quite unnecessary. The tubes have now been in use upwards of 14 years, and above 22,000 are in work in various parts of the country, with the best results. They can be easily fixed in existing boilers (owing to their taper form) by any boiler maker, but can only be obtained from the patentees, W. and J. GALLOWAY and SONS, Engineers and Boiler Makers, Manchester.

MR. D. STICKLAND, M.E., has had upwards of 40 years' mining experience in Cornwall, during several years of which he has had the entire management of mines. Advice given gratis. DEALER in MINING, RAILWAY, and OTHER SHARES.

RARE OPPORTUNITY.—FOR SALE, TWENTY SHARES in a SILVER-LEAD DIVIDEND MINE, at 4s. each, not in the market, company first-rate. FIFTY SHARES in a GRANITE QUARRY, at 20s. each, likely to pay 30 per cent. in twelve months.

FIFTY SHARES in a PATENT STARCH COMPANY, paying 10 per cent., and every probability of paying 50 per cent. SIXTY SHARES in GREAT SOUTH CHIVERTON. No reasonable offer refused for the latter. Temporary Offices, 5, Finsbury-street, London, E.C.

MESSRS. R. C. CLIFTON AND CO., SHAREBROKERS, ALDINE CHAMBERS, PRINCESS STREET, MANCHESTER. Mines inspected, and reports furnished. The best practical advice given to capitalists as to investments in mining. Bankers: National Provincial Bank, Manchester.

NOTICE OF REMOVAL.

MESSRS. TREDINNICK AND CO DEALERS IN STOCKS AND SHARES.

MR. RICHARD TREDINNICK, MINING ENGINEER AND CONTRACTOR.

MR. THOMAS TREDINNICK, SCRIVENER.

OFFICES.—ST. MICHAEL'S HOUSE, CORNHILL, LONDON. The business hitherto conducted at 78, Lombard-street is transferred to the above address.

Stocks, Shares in Banks, Railways, Canals, and Insurance Companies dealt in, and Money Advanced upon all sound Securities. Principals alone treated with.

CAPT. RICH, BODMIN, CORNWALL, being in the centre of the mining districts of Devon and Cornwall, and having had 25 years' experience in the management and inspection of mines, OFFERS HIS SERVICES to INSPECT and REPORT on MINES in either of the above counties. Orders promptly attended to.

TO MINING AGENTS AND DIRECTORS OF LEAD MINING COMPANIES.

MESSRS. WESTON AND COLLINGBORN, of No. 18, PETER STREET, BRISTOL, having fitted up an establishment at SWINFORD, near BITTON, BRISTOL, for the SMELTING and REFINING of SILVER-LEAD and the other qualities of LEAD ORES, are now prepared to PURCHASE by TENDER, or otherwise, LEAD ORES in any quantities that may be offered to them.—Swinford, near Bitton, Gloucestershire, Oct. 5, 1866.

SHAREHOLDERS IN PUBLIC COMPANIES desirous of avoiding calls and further responsibility will find purchasers on applying to Messrs. BARRETT AND CO., 78, LOMBARD STREET, CITY, and No. 20, SPRING GARDENS, CHANCERY CROSS. Stocks, shares, mining, and other miscellaneous securities bought and sold. Investment Review on application. Cash advances made.

MINING OFFICES, MANCHESTER.

THOMAS MOLYNEUX AND CO., MINE AGENTS AND SHAREBROKERS. Reliable information can be obtained as to purchase and sale of shares.

Offices of the Ellen United Copper and Zinc Mining Company (Limited), and Hazell Grove Silver-Lead Mining Company (Limited). THOMAS MOLYNEUX, secretary, 28, Princess-street, Manchester.

MANCHESTER, AND WEST END OF LONDON.

MR. W. HANNAH, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER.

ROYAL INSURANCE BUILDINGS, KING STREET MANCHESTER; and 31, REGENT STREET, LONDON, S.W.

INSTANTANEOUS COMMUNICATION with the STOCK and MINING EXCHANGES, avoiding the delay and annoyance of visiting the City to ascertain prices. A Monthly Investment Circular on application.

ROBERT LIBBY AND SON, MINE AND SHAREDEALERS, CAMBORNE, CORNWALL.

CAPT. JOHN ROBERTS, who has just returned from Brazil, and

who has spent eighteen years in gold mining in Brazil, New Granada, &c., now OFFERS himself to INSPECT any MINES in or out of Great Britain. Capt. ROBERTS would have no objection to a permanent situation.—Address, Hotel, Schull, Cork, Ireland.

MESSRS. WEBB, WADGE, AND CO., MINING ENGINEERS, AGENTS, AND SHAREDEALERS, PLYMOUTH.

(Late Edwin H. Wadge, from Clarence Chambers, Manchester.) WEBB, WADGE, AND CO., occupying as they do a central position in the mining districts, will be enabled to acquire authentic information on all mining properties, and to advise their clients with the utmost correctness and punctuality. They will be also able to faithfully report the progress and exact position of the various mines in which their clients have embarked.

The personal attention of our Mr. Wadge may be always relied on.

MR. ERWIN HARVEY WADGE, F.G.S., of STRADBROOK HALL, BLACKROCK, COUNTY DUBLIN, finds it necessary to point out that he is NOT the MR. WADGE of the FIRM of WEBB, WADGE, AND CO., of PLYMOUTH, with which he has NOT THE SLIGHTEST CONNECTION. This announcement is not made with any disrespect to, or prejudice of the respectability of, Messrs. Webb, Wadge, and Co., but purely to prevent such a confusion of persons as the extraordinary similarity of two names (the initials being identical) gives rise to.—Stradbroke Hall, June 21, 1866.

NOTICE.—CAPT. S. M. RIDGE, of LLANIDLOES, MONTGOMERYSHIRE (late manager of the Brynastig and Cwm Ffynnon Mines, and others, in Shropshire and Wales), is NOW OPEN to INSPECT and faithfully REPORT UPON ANY LEAD MINE in either of these localities that may be confided to his care, having had better than 30 years' experience in lead mining, as miner and agent.—Address, Capt. S. M. RIDGE, Llanidloes, Montgomeryshire.

CHARLES DAVEY AND CO., SAFETY FUSE MANUFACTURERS, ST. HELEN'S JUNCTION, LANCAHIRE.

LEAD ORES.				
Date.	Mines.	Tons.	Amount.	Purchasers.
Oct. 24	Isle of Islay	59	£13 6 0	Walker, Parker, & Co.
26	Cargill	78½	16 2 6	R. Michell and Son.
	— ditto	14½	8 2 6	ditto
Nov. 2	Minera	102	12 11 6	ditto
	— ditto	102	12 11 6	ditto
	— ditto	73	12 15 0	A. Eytton.
	— ditto	68	12 15 0	ditto
5	Frongoch	70	12 6 6	Weston & Collingborn
	— ditto	70	12 1 6	Walker, Parker, & Co.
	— East Darren	65	15 7 6	Stock & Co.
	— Cwm Erfin	30	15 7 0	Walker, Parker, & Co.
	— ditto	30	15 16 0	Panther Lead Co.
7	Minera Boundary and	35	12 18 6	Walker, Parker, & Co.
	Lower Elsteddof	5	5 0 0	ditto
8	Talargoch	116½	13 18 6	ditto
	— ditto	70	12 1 6	ditto
	— Westminister	20	12 1 6	ditto
	— Trelogan	22	13 5 6	ditto
	— Bryn Gwlog	30	13 2 6	ditto
	— Wagstaff	22	11 6 0	ditto
	— Pennant	8	11 12 6	Adam Eytton.
	— Parry's	8	12 5 6	Walker, Parker, & Co.
	— Clwst Militia	11	12 13 0	ditto
	— Bryn Gwlog	22	11 17 6	ditto
	— Great Rhosmor	16½	12 2 6	ditto
	— Whitwell	50	11 16 6	John Warwick.

BLENDE.				
Date.	Mines.	Tons.	Amount.	Purchasers.
Oct. 31	Great Laxey	300	£3 5 0	Vivian and Sons.
Nov. 2	Minera	98	3 17 6	Henry Southern.
	— ditto	57	3 10 6	Bagillt Co.
	— ditto	37	3 9 0	ditto
	— ditto	20	4 1 6	Henry Southern.

The MINERA MINES sold during the quarter ending Sept. 1.—					
LEAD ORE.			BLIENDE.		
July .....	Tons	£3616 6 0	July .....	Tons	£ 802 3
August .....	320	2776 0 0	August .....	215	776 17
September .....	362	4474 18 6	September .....	292	997 11
Total .....	992	£11867 4 6	Total .....	723	£2376 11
Total value.		£14,443 16s. 0d.			

COPPER ORES. Sampled Oct. 24, and sold at Tabb's Lot, Redruth, Nov. 8.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Prosper United	90	£1 8 0	East Rosewarne	31	£5 10 6
ditto	67	4 5 0	ditto	24	2 11 6
ditto	56	2 13 0	ditto	23	5 16 0
ditto	48	3 1 6	Camborne Veau	64	2 2 6
ditto	40	2 12 0	ditto	26	6 11 6
ditto	37	3 3 6	ditto	14	3 1 6
ditto	35	3 16 0	Copper Hill	56	0 18 6
ditto	32	8 10 6	ditto	41	5 13 0
East Carn Brea	53	4 1 6	Levant	47	5 3 6
ditto	41	2 19 6	ditto	40	0 3 6
ditto	37	5 0 0	Wheal Margery	29	4 12 0
ditto	32	3 1 0	ditto	29	2 11 6
ditto	12	2 3 6	Wheal Curtis	37	0 15 0
West Bassett	54	3 3 6	Wheal Polmar	54	5 13 0
ditto	41	3 15 6	Wheal Buller	27	1 13 6
ditto	29	7 7 6	ditto	5	6 9 0
East Rosewarne	41	7 10 0	Boscawell	15	6 2 0

TOTAL PRODUCE.									
Prosper United .....	405	.....	£1334	0	6	Levant .....	87	.....	£ 250 4
East Carn Brea .....	193	.....	713	14	0	Wheal Margery .....	81	.....	211 8
West Basset .....	124	.....	540	2	0	Wheal Curtis .....	29	.....	111 15
East Rosewarne .....	119	.....	673	19	6	Wheal Polmar .....	24	.....	305 2
Camborne Veon .....	104	.....	350	0	0	Wheal Buller .....	32	.....	77 9
Copper Hill .....	97	.....	283	9	0	Boscawell .....	15	.....	91 10

## WATSON AND CUELL'S MINING CIRCULAR

WATSON AND CUELL,  
MINING AGENTS, STOCK AND SHARE DEALERS, &c.  
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

**Messrs. WATSON AND CUELL** having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon mines and mining, and the state of the share market, will in future appear in this column.

In the year 1848, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1842, by Mr. J. Y. WATSON, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1842), "Cornish Notes" (second series, 1843), "The Progress of Mining," with statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium, published in 1848, Mr. WATSON was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. WATSON AND CUELL have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share dealing than there is at present; and, from the lengthened experience of Messrs. WATSON AND CUELL, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON AND CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years' active connection with the Mining Market.

Messrs. WATSON AND CUELL also inform their clients and the public that they transact business in the public funds, railway, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON AND CUELL are also daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON AND CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in rendering their advice on all matters relating to the state and prospects of mines and mining companies, and are able to supply shares in all the best mines at close market prices, free of all charge for commission.

"P. C."—**HINGTON DOWNS**, which is immediately adjoining Prince of Wales, began dividends in 1844, and in that year sold copper ore, 22,248,128, 6d., paying 4050l. profit. In 1855 sold copper ore, 22,614, 1s., and paid 8250l. in dividends. In 1856 paid 3900l. During the present year the returns have been 11,390l., and the last dividend, 1500l., was paid in April last. Other mines in immediate proximity to the Prince of Wales have also made very large returns and profits. All mining districts, like mines, are uncertain, but the country about Prince of Wales is everything that can be desired, and the prospects of great success in depth are of first-rate character.

**CHONTALES**—"X."—The advices are received monthly, and the next due in a few days. We certainly expect gold.

**CORNISH PUMPING ENGINES.**—The number of pumping-engines reported for Sept. is 24. They have consumed 1762 tons of coal, and lifted 130 million tons of water 10 fms. high. The average duty of the whole is, therefore, 49,700,000 lbs., lifted 1 ft. high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Chiverton—Cookney's 60 in. ....	Millions	58.5
Carroll Mines—Mitchell's 72 in. ....		52.0
Deloach—Harriet's 60 in. ....		52.4
North Roskear—Doctor's 70 in. ....		61.7
North Wheal Crofty—Trevelyan's 80 in. ....		49.8
West Caradon—Elliot's 50 in. ....		51.7
West Chiverton—Hawke's 80 in. ....		60.7
Wheal Seton—Tilly's 70 in. ....		73.8

**MINING BY MACHINERY.**—The object of the invention of Mr. T. BERRENS, of Tarbes, is to increase the progress of the work in cutting through hard rocks by putting 10, 15, 20, or more men to the work where no more than one or two could work together according to the method at present in use. The perforating apparatus consists of a sheet-iron cylinder of about 4½ feet in diameter and 3 feet in length, supported by a long round iron central bar or shaft, on which it is securely held by means of a strong cross piece; the sheet-iron cylinder is furnished at its outer end with several sets of boring tools of various shapes. The central shaft is carried over several grooved pulleys over which it can slide; at its outer end it is fitted with a boring tool, while its opposite inner end has a toothed wheel keyed upon it, which gears into and is worked by an endless screw; besides, the central shaft runs in bearings or bearings supported near the pulleys by a long wooden frame which is laid down in the tunnel. Another long upper wooden frame is attached to or connected with the iron cross piece carrying the shaft; the latter wooden frame is furnished with cross pieces similar to the steps of a ladder, supported by two or three pairs of wheels travelling on rails laid down at the bottom of the tunnel. In working the apparatus, several men are seated on boards, with their backs towards the working tools, one man being seated between every two steps of the ladder. Each workman holding one of these steps, pushes forward, and thus draws back the ladder, and at the same time the cylinder in the manner usual in rowing boats. By repeating this motion the boring tools will be made to enter the rock, and form a circular or annular channel. At each blow a slight motion of the endless screw causes the toothed wheel to turn round, and describe a limited arc of circle, by means of which the position of the boring tools is changed, and in this manner small particles will be detached from the rock. A small stream of water is led into the channel as it is perforated, to assist in the progress of the work. As soon as the depth of the channel has become equal, or nearly equal, to the length of the perforating cylinder the latter is removed, and gunpowder having been introduced into the circular or annular channel or ditch, it is exploded, and the particles of rock detached are carried away.

**POPULAR SCIENCE—ROYAL POLYTECHNIC INSTITUTION.**—The admirable manner in which the professors at the Royal Polytechnic combine instruction with amusement has been many times previously pointed out in the *Mining Journal*, and the new lectures now being given by Prof. Pepper afford additional justification for whatever favourable opinions may be entertained regarding them. The optical illusions obtained by thrusting boys' heads through perforated looking-glasses, and calling them cherubs, attracts innumerable visitors who would otherwise avoid everything approaching science, and they speedily learn that the laborious researches of such men as Brewster, Faraday, Tyndall, and others can, by a little judicious manipulation, be made so attractive and instructive to every one. Prof. Pepper's elucidation of Tyndall's latest researches into the nature of heat is one of the most attractive lectures ever given within the theatre of the Institution. To light a fire in the kitchen and place a joint in the garden would scarcely be considered a judicious mode of cooking, yet Prof. Pepper shows that meat can be cooked at a distance of 100 ft. from the fire, whilst as the converse of this experiment he shows that in a room where neither light nor fire exists invisible rays may be introduced which will light a cigar or cause other combustibles to ignite. But this lecture on Heat is not the sole attraction amongst the present series of novelties. The successful laying of the Atlantic Cable has created the desire amongst a large number of persons to become telegraphists and electricians, and to suit the tastes of these Mr. J. L. King has prepared a most interesting and instructive lecture upon "Telegraphy in General, and the Atlantic Telegraph in Particular," which is listened to throughout with marked attention. Electricity is a science to which Mr. King has devoted a considerable amount of attention, and in his present lecture he certainly shows that he has great power to place his knowledge at the disposal of others.

**PAYMENT IN MONEY OR SHARES.**—The suit *Fergusson v. Wilson* was instituted against the Washon United Consolidated Gold and Silver Mining Company (Limited) and its directors, for the purpose of obtaining a declaration that the plaintiff was entitled to certain shares in the company. But it appearing to have been optional with him to receive payment for an advance to the company, either in shares or money, and a cheque having been sent to him by the company's secretary in payment thereof, which, after keeping two days, he returned, requesting to be paid in shares; but, in the interim, attended a meeting of the company, where his conduct led to the inference that he accepted the cheque, it was held by Vice-Chancellor Stuart that such conduct amounted to an acquiescence in the payment, and he barred him from all further claim.

**NON-LIABILITY TO CONTRIBUTION.**—In re the Rolling Stock Company of Ireland (Shackelford's case), Mr. Shackelford applied in writing for shares, on the understanding that all payments on them beyond the deposit paid on application should be paid in goods, to be supplied by him to the company, and he paid a deposit on the shares so applied for. He received no letter of allotment or otherwise, but his name was placed on the register of shareholders. He had never been called upon to furnish the goods, nor to pay calls. Vice-Chancellor Wood held that he was not liable to be treated as a contributory, as there never was an acceptance by the company of the terms proposed by him. This decision has been affirmed, on appeal, by the Lords Justices.

**LIABILITY OF REAL ESTATE.**—In the case of *Coleby v. Coleby*, where an intestate had contracted to let upon the security of a promissory note, and a deposit of his title deeds, and at the same time executed an agreement, in which he stated that the deposit was intended as a "collateral security," it was held by Vice-Chancellor Stuart that his real estate was primarily liable for payment of the debt, the question coming within the scope of *Locke King's Act*. And in the same case, where an heir-at-law, as an act of bounty, voluntarily paid an intestate's funeral expenses, the Court refused to allow him to be reimbursed out of the intestate's personal estate.

**VENDOR AND PURCHASER.**—The defendant, in the case of *Duddell v. Simpson*, sold property to the plaintiff under a condition that if the plaintiff should insist on any objection or requisition to title, with which the defendant was unwilling or unable to comply, the defendant might annul the sale. The plaintiff made a requisition with which the defendant did not comply. The plaintiff filed his bill for specific performance of the contract, and afterwards waived his requisition, but was held by Vice-Chancellor Stuart that the plaintiff's filing his bill before actual waiver was not such an "insisting" as would justify the defendant in annulling the sale.

## THE BRITANNIA SILVER-LEAD MINING COMPANY (LIMITED).

4, ALLHALLOWS CHAMBERS, 49, LOMBARD STREET, LONDON, E.C.  
The concession of mining rights over thirty square miles of territory has just been granted to this company by the Emperor of France; one of the mines opened upon is now in an advanced state, and silver-lead ore of first-class quality is being shipped to Swansea, for which prices varying from £17 10s. 6d. to £15 7s. per ton have been realised.

The directors are willing to receive applications for a limited number of the new issue of shares, which are of £1 each, payable either in full, or by instalments of 5s. each.

Further particulars relating to the concession and the mines, also specimens of the ores, may be obtained on application to Mr. N. M. MAXWELL, at the offices of the company. Reference is invited to the weekly reports from the mine, which duly appear in the *Mining Journal*.

## EAST WHEAL ROSE CONSOLIDATED SILVER-LEAD MINING COMPANY (LIMITED).

In the neighbourhood of the well-known West Chiverton Mine.  
Capital £15,000, in 5000 shares of £3 each.  
Deposit on application, 10s. per share; upon allotment, 10s. per share.  
No further call will exceed 5s. per share.

Incorporated under the Companies Act, 1862, which strictly limits the liability of each shareholder to the amount of his subscription.  
BANKERS—The City Bank (Ludgate Branch), 25, Ludgate-hill, E.C.  
BROKERS—Messrs. P. O. and J. H. Robertson and Co., 16, Abchurch-lane, Lombard-street, E.C.

SECRETARY—Mr. Mayger.  
OFFICES,—16, ABCHURCH LANE, KING WILLIAM STREET.

## PROSPECTUS.

This company has been formed to work one of the most valuable silver-lead mines recently discovered in the county of Cornwall, situated in the parish of St. Erme, and in the immediate vicinity of East Wheal Rose and West Chiverton, two of the richest silver-lead mines in the world.

The property is held under lease for 21 years, at very moderate royalties, and the directors have entered into a provisional agreement for the purchase of the property and plant for the moderate sum of £1750 in cash, and 2000 shares, paid up to £2 only, thus showing the confidence of the vendors in the property.

It will be seen from the reports accompanying the prospectus, that three most promising lodes have already been opened upon, requiring only a vigorous development to insure this becoming, in all probability, a most important dividend-paying mine.

The property has been examined by several practical and experienced lead miners, including Capt. John Kitto, whose ability as a miner is substantially manifested by the present remunerative condition of the celebrated Great Laxey Mines; and the general opinion is that, with efficient management, the mine does not fail to become equally as profitable as any of the celebrated mines in this district.

The directors will pay no promotion money.  
The Articles of Association do not contain any special or unusual clauses, and can be inspected either at the company's offices, or at the solicitors. The meetings of the company will be held half-yearly.

The directors will endeavour to observe the greatest economy in all matters of expenditure, consistent with the proper development of the property.  
A considerable portion of the requisite capital has been already privately subscribed.

Allotments will be made according to priority of application, and where no allotment is made the deposit will be promptly returned, without any deduction whatever.

Applications for shares to be made by filling up the form accompanying the prospectus, and transmitting it with the amount of deposit to the bankers, brokers, or secretary of the company. No application will be received for less than five shares, and the shares will be issued in certificates of five each.

Full prospectus, with reports by Capt. John Kitto (late of Great Laxey), and Capt. James Brown, of Penhale and Lomax Mines, and forms of application for shares can be obtained of the bankers, brokers, or at the offices of the company, where specimens of the ores may be seen, and every information obtained.

## GREAT WEST ST. GEORGE COPPER MINING COMPANY (LIMITED).

The directors beg to announce that, from the number of shares in the above company already disposed of, they have resolved to COMMENCE OPERATIONS AT ONCE. The directors and promoters, who already hold more than one-third of the shares, have entrusted the management of the works to Capt. WASLEY, a gentleman of great mining experience, in whom they have the most confidence. Capt. Wasley has made a most favourable report as to the prospects of the mine; he states—"As soon as the main shaft has been sunk another 10 fathoms, large quantities of ore will be sent into the market monthly, yielding a handsome return on the outlay."

The directors are of opinion that the property offers unusual inducements for investment. As a proof of the richness of the mine, tributors (when the mine was under the management of the late Mr. John Kitto) obtained, and they are desirous of working again on the same terms, at the other workings, as soon as the water is pumped out of the mine.

The directors are determined to leave nothing undone to ensure satisfactory results, and they have decided to inform the shareholders from time to time, by circular or advertisement, as to the progress made.

Being satisfied of the bona fide character of the undertaking, they have much confidence in recommending it to the public as a safe investment of capital.

See extract from *Investors' Guardian*, July 28, 1866.

**WEST GREAT ST. GEORGE COPPER MINING COMPANY.**—There are two, if not more, circumstances connected with this undertaking which render it more than usually attractive. The first relates to the direction, the quality and influence of the persons by whom it is composed, and the large and liberal interest they have embarked in the undertaking. When persons of public repute, as well as of individual merit, embark in any transaction; when they prove their sincerity by the most effectual and tangible process open to them—viz., a large holding in the company—it is not surprising that others should be attracted to the project, until it settles down as one of the really respectable adventures of its class.

The second adventitious aid of which this association is possessed relates to the character of the property itself, and the ready means of development at its command. These are, fortunately, beyond cavil, and within the reach of investigation by every one who may be disposed to take an interest in the undertaking. The prospectus is thoroughly explicit on this subject, so that every one of its statements may easily and readily be tested, to the satisfaction of every intending subscriber. The capital is limited to £30,000, in £5 shares, and of this amount more than a moiety is already taken by the promoters, directors, and their immediate connections.

Application for the remaining shares to be made to F. W. WILLIAMS and Co., Market-street, Manchester; or BRADLEY and PERCY, Kennedy-street.

## BRITISH AND FOREIGN INVESTMENT.

MR. THOMAS SPARGO, 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON, E.C., TRANSACTS EVERY DESCRIPTION OF BUSINESS IN THE PURCHASE AND SALE OF SHARES IN BANKS, CANALS, MINES, RAILWAYS, BRIDGES, INSURANCES, AND ALL OTHER DESCRIPTIONS OF BRITISH AND FOREIGN STOCK.

Mr. Spargo has 29 years' experience of mining, ten of which he was engaged in the management of mines, and ten years he has transacted business in mining shares and stock, at 224 and 225, Gresham House, Old Broad-street, City, E.C.

Bankers: London and Metropolitan and Provincial Bank (Limited).

## MESSRS. CARNE AND CARTHEW.

BRITISH AND FOREIGN SHAREDEALERS, FINANCIAL AGENTS, NEGOTIATORS FOR THE SALE OF MINES AND MINING PROPERTY OF EVERY DESCRIPTION.

ST. JUST AND WEST CORNWALL MINING OFFICES, 12, NORTH BUILDINGS, BROAD STREET TERMINUS, E.C.

Messrs. CARNE AND CARTHEW, after business relations for twenty years, have entered into partnership for the general conduct of mining business, which they believe their long experience and knowledge will enable them to transact with satisfaction to their clients.

As Sharedealers they will buy and sell on the usual charges for commission, and having no bias of their own, will ever be ready to advise their correspondents as to the best and securest investment in the market. Those of their friends who, in the early part of the year followed their counsel have benefited, in many instances, 200 or even 300 per cent., and this, by judicious operations, will always be the case, whilst the unadvised outsider, who listens to the senseless gossip which emanates from irresponsible "mining men," are sure to lose their money.

As Financial Agents, CARNE AND CARTHEW propose to enter on an entirely new field of business. It has long been patent to all who are bona fide adventurers in the great mining industry of the country that the Limited Liability Act, whatever may be its value or its worthlessness for other enterprises, is utterly unfit for mining purposes; for just at the moment that the property is being brought into a paying state the power to make calls becomes exhausted, and the borrowing powers which the company have, under their deed of settlement, can seldom or never be satisfactorily exercised. To supply this great defect in the working of companies so constituted, and thus rescue many valuable concerns from ruin, and their shareholders from serious loss, is an important object in the programme of their business.

The Transfer and Sale of Mines, as at present managed, when offered in London (and there is no other place where a market can be found) is most wretchedly conducted, as every practical man knows who glances at a catalogue. The salesman is ignorant of what he is dealing with, and he cannot convey to his clients a clear perception of the value of the estate, it being to him a sealed book. This important defect CARNE AND CARTHEW, from their great experience, feel they can well supply, and will be happy to negotiate all such sales or transfers, either by private negotiation or public auction.

CARNE AND CARTHEW have adopted the name of the St. Just and West Cornwall Mining Offices, because it has been the scene of their great success, they having paid dividends from more mines in those districts alone than any other firm has throughout the empire, and because those districts are, from their being almost a terra incognita to the London world, less dealt in than the better supported districts of Caradon and Tavistock, although, as they believe, far more deserving public support.

London Agencies for respectable constituted companies conducted.

MINES INSPECTED BY EDUCATED AGENTS OF GREAT EXPERIENCE.

**TO MINE, SLATE QUARRY, AND RAILWAY COMPANIES.**—CAPT. C. WILLIAMS IS NOW OPEN TO UNDERTAKE ALL KINDS OF CONTRACTS, such as DRIVING LEVELS, SINKING SHAFTS, CONSTRUCTING WATER COURSES, CANALS, TRAMWAYS, &c., and ERECTING ALL SORTS OF MACHINERY FOR MINING AND OTHER PURPOSES, having on hand at all times a first-class staff of miners and machinists, who will proceed to any part of the world upon the shortest notice. N.B.—In all cases where they will be left in hand until the work is complete.

Tryn-y-Wern, Taliesin, via Shrewsbury.

## BAGILLT OIL COMPANY (LIMITED),

FLINT.  
MANUFACTURERS OF BLACK GREASE FOR COLLIERY WIRE ROPES, TRAMS, WAGONS, &c., £5 PER TON.  
TORCH AND LAMP OIL, 1s. PER GALLON.  
Casks free.

## Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be filed on receipt: it then forms an accumulating useful work of reference.

**COPPER SMELTERS IN AMERICA.**—Can either of your correspondents furnish me with the name of the American United States copper smelters, especially those about Baltimore?—J. TREMAYNE: *Truro*.

**OLD RUSSELL, AND EAST RUSSELL.**—Seeing a paragraph in last week's *Journal* relative to the important discovery at Old Russell, and that the lode runs through East Russell, which appears to be most important for this mine, as a shareholder, I shall be glad to hear from our agents how far this lode runs through our sett, and the value of the lode at present in Old Russell; no doubt their reply will be appreciated by East Russell shareholders.

**SHARE DEALING.**—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL,  
Railway and Commercial Gazette.

LONDON, NOVEMBER 10, 1866.

## MECHANICAL VENTILATION OF COLLIERIES.

The ECCENTRIC FAN VENTILATOR, invented by Mr. TH. LEMIELLE, of Valenciennes, France, described in the *Mining Journal* some five years since, was, as will be seen from our local correspondent's letter, again brought before the notice of the North of England Institute of Mining Engineers at their meeting, on Saturday, and was extremely well received. Mr. ELLIS LEVER, of Manchester, who has been appointed the agent for Great Britain, writes that great interest was excited there by the model which he exhibited, and already they are asked to send estimates for the erection of the ventilator at some of the most important collieries in Durham, where they undertake to extract from 100,000 to 200,000 cubic feet of air per second, the ventilator working at only 12 to 20 revolutions per minute, and using only a very small quantity of coal compared with the furnace. In the Supplemental Sheet which accompanies this day's *Journal* will be found an illustrated description of some of the principal ventilators used on the Continent, in which centrifugal force is availed of for extracting the air.

It will, no doubt, suggest itself to many of the readers of the *Journal* that the proposal to introduce Mr. LEMIELLE's ventilator will afford a favourable opportunity to revive the discussion upon the relative merits of machine and of furnace ventilation, as well as of the several classes of machine ventilation which has been proposed. The fact of Mr. LEMIELLE's ventilator having now successfully borne the test of seven years' practical trial will permit of the consideration of the subject in a manner which was impossible when Mr. LAURENT's paper upon the machine was read before the North of England Institute in 1859, so that a satisfactory and final solution of the question may reasonably be hoped for; for such a discussion the necessary space will gladly be afforded.

With a view to facilitate the systematic consideration of the matter by those in favour of the several modes of ventilating collieries, a few of the chief questions raised and remaining to be answered may be mentioned. It has to be demonstrated whether the furnace is superior to every description of machine ventilation, and whether the great advantage belonging to the furnace—that the ventilation of the pit continues unimpeded for some hours after the furnace has been put out—can be produced by any contrivance connected with the machine. It has to be demonstrated whether the centrifugal (or its modification, the eccentric) or the reciprocal system of machine is to be preferred—the advantage of the centrifugal being that the outward course of the air is continuous, and its disadvantage that the extraction of air does not increase with the speed of rotation, and that if a certain speed be exceeded the ventilation ceases altogether; whilst the advantages of the reciprocal (represented by the machines of STRUVE, NIXON, and others) is that each stroke extracts a given quantity of air, the return of which is prevented by valves, and its disadvantage is that there is a dead-stop at each half-stroke. A secondary question, coming under this head, is whether the valves of the reciprocal system or the moveable wings, when used, of the centrifugal system are the more liable to derangement. And it has to be demonstrated whether the larger quantity of air extracted when moveable wings are used is compensated for by the fewer parts liable to get out of order when no such wings are used. Each of these points offers a fair field for discussion, which cannot fail to elicit a very large amount of valuable practical information.

## THE NORTH OF ENGLAND IRON TRADE.

The state of the Pig-Iron Trade of the Cleveland and North of England district is in by no means a satisfactory condition, and should the strike in connection with the finished iron manufacture continue much longer, it is not unlikely that a number of the blast-furnaces will be blown-out. The stock of pig-iron in store at Middlesbrough continues to increase, and now stands at about 56,000 tons. The stocks in makers' hands are also on the increase, and, as the demand is not equal to the supply, prices are being forced down by underselling. Official quotations at present are, No. 1, 49s. 6d.; No. 3, 46s. 6d.; No. 4 forgo and No. 5, 45s.; No. 6, 44s. The above prices are for cash, and four-months bills are 1s. 6d. per ton extra. Good orders can, however, be booked at prices somewhat below the above, but the leading firms adhere as nearly as possible to the official quotations. The affairs of M'EWEN, BRYSON, and Co., are now exciting a good deal of attention here, as the bankrupts' examination is now on at Glasgow, and some remarkable disclosures have been made relative to the late disastrous rig in the Scotch pig-iron market. It now turns out that a select party of ten entered into a compact in the parlour of the ill-fated BARNED'S Bank, at Liverpool, about the end of January last, the object of the combination being to force up the price of pig-iron. The clique had at that time bought up warrants for 500,000 tons of pig-iron, while the actual amount of iron in store was only 370,000 tons. Thus it was clear the sellers of the warrants would be in the hands of the party when the time for delivery came, as they would be compelled to go in the market and to buy warrants at the price then prevailing. As, however, they would have to deal in reality with the members of the clique, they would be compelled to pay exorbitant prices for what warrants they wanted to buy; and thus it was that the rates for Scotch pig-iron went up to above 80s. per ton, while the normal value of the iron was only about 54s. There is no doubt this bold speculation, which only wanted a few elements to have made it a financial success, had a very material influence in producing the monetary crisis. BARNED'S Bank had done a good deal in advancing money on the iron warrants, and it is said that O'BRYEN, GURNEY, and Co. were also mixed up in the affair, and it seems likely that the downfall of the two concerns was intimately connected with this speculation. A missing letter-book is wanted before all the details of this remarkable speculation can be ascertained, and at present there does not seem a very good prospect of the book being found.

The finished iron trade is gradually getting under way again. The protracted strike still ostensibly continues throughout the whole district, but the men are going in in various places, and most of the firms have their mills and forges in partial operation again, with non-Union men and with hands from other districts. Wherever the men have gone to work on the reduced terms they are very bitter indeed against the leaders of the strike, who have failed to give them more than about half-a-crown per head per week since the strike commenced. The men are leaving the Union fast, and declare that they will not be so misguided as to trust to it in future.

The leaders, apparently feeling this, and getting aware that their power in the North is waning, are making an attempt to amalgamate the Northern and Southern Unions, which for some years have been working separately from each other. The Brierley Hill executive, however, and the Staffordshire Millman's Union object to the proposal, and, therefore, it appears unlikely that it can be carried into effect. But the Staffordshire men are, in the mean time, sending a certain amount of help up here, though as the works there are only on about half-time they are not able to do much. It is fully anticipated that in a few weeks all vestiges of the strike will have disappeared, except in the disastrous effects which it will leave behind. In many places fever and other diseases are very prevalent, owing, doubtless, to the low diet. When the works are re-opened, it seems probable that only partial time will be made, or only a portion of the men will be re-engaged. We hear of some works which have been laid by for a time, and which will not be re-opened at present, except there should be some unexpected revival of trade. The shipbuilding yards are very slack; the engineering establishments have in most cases dispensed with a portion of their hands, and on all sides we have evidence that the iron and cognate trades, not only here but in all districts, are in a most depressed and unsatisfactory state. We may, however, expect better times after Christmas, should nothing unforeseen occur. The men on strike are still endeavouring to enforce their demands by resorting to mob law, and at Wotton Park, during the last week, a serious riot has occurred, and a number of men on strike have been committed to the Assizes for trial. They have damaged their cause very much by these disgraceful proceedings. The proposal of Messrs. Fox, Head, and Co. for co-operative ironworks has been received with great coolness by the men. The firm only propose to take the reasonable sum of 10 per cent. on the profits for interest on capital. The men consider this too much, being evidently of opinion that the employers should be content without any return for their money, or any recompense for the anxieties and risks involved in a business like the iron trade.

**COPPER ORE AND REGULUS.**—The value of the copper ore imported into the United Kingdom in the first eight months of this year was 837,500*l.*, as compared with 760,277*l.* in the corresponding period of 1865, and 719,801*l.* in the corresponding period of 1864. The value of the copper ore imported to Aug. 31 this year from Cuba was only 88,731*l.*, as compared with 112,084*l.* to the corresponding date of 1865, and 111,491*l.* to the corresponding date of 1864. On the other hand, the value of the copper ore received from Australia has largely increased this year, the value of the deliveries from that quarter of the world being computed at 143,028*l.* to Aug. 31, as compared with 77,336*l.* to the corresponding date of 1865, and 49,341*l.* to the corresponding date of 1864. The value of the Chilean copper ore imported in the first eight months of this year was 298,969*l.*, as compared with 276,251*l.* to the corresponding date of 1865, and 266,894*l.* to the corresponding date of 1864. The value of the copper regulus imported to Aug. 31, this year, was 902,582*l.* (807,809*l.* from Chili), as compared with 752,643*l.* (697,256*l.* from Chili) in the corresponding period of 1865, and 668,606*l.* (582,630*l.* from Chili) in the corresponding period of 1864. The combined value of the copper ore and regulus imported into the United Kingdom in 1866 was 1,929,637*l.*; 1857, 2,157,558*l.*; 1858, 2,138,880*l.*; 1859, 1,812,023*l.*; 1860, 2,211,558*l.*; 1861, 2,008,246*l.*; 1862, 2,631,056*l.*; 1863, 2,000,473*l.*; 1864, 2,054,674*l.*; and in 1865, 2,699,064*l.*

**COPPER MINING IN THE LAKE SUPERIOR DISTRICT.**—Some short time since a series of highly interesting articles relating to the copper mines of Lake Superior was published in the Journal, and Mr. John Daniell, of the Copper Falls Mine, Keweenaw county, Michigan, the author, has now forwarded some beautiful specimens of the produce of the district referred to, which may be examined at the *Mining Journal* office by those interested. They comprise some of the calumet conglomerate; ore from the ash-bed rock; and some beautiful specimens of crystallised copper with quartz, in the trap which overlies that rock. From a casual inspection, the copper appears to be as near as may be pure, and competent judges estimate that the rock as broken is worth 30 per cent. for metal. Mr. Daniell writes that the specimens are not picked, or lately broken, being from rock left on hand after last year's shipment. There are also samples of native copper, one piece chipped from a mass of more than 100 tons. Assuming that the samples may be taken fairly to represent the copper deposits of the district, there can be little doubt that Mr. Daniell has not overestimated the attractions which the locality offers to British capitalists, judiciously advised.

**RAILWAY FREIGHTS FOR AGRICULTURAL PRODUCE.**—Connected with the question of Railway Reform in Ireland, it will interest the farming, the labouring, and consuming classes, and especially the share and debenture holders, who sigh for profits and dividends from railways, to learn that here, in Prussia, several railway companies are now, as in former harvest seasons, carrying potatoes at a rate which is about 3*d.* per ton per English mile. For short distances the rate is a fraction over 3*d.* per ton per mile; for longer distances it is rather less. Thus, for 5 tons, for 93 English miles, reducing the weights, money, and distances to English standards, it is just 17*s.*, or 3*s.* 1*d.* per ton—about 3*d.* per stone. The only conditions are that the potatoes be delivered in full wagonloads of 5, 10, or 15 tons, and that the railway company shall not be accountable for any injury by frost. The company, of course, furnishes the wagons, and cover them with great leathern covers, as I have seen myself this day. In this matter the railway companies are truly fulfilling the great mission of railways—equalising prices, bringing the produce from the thinly populated agricultural districts, where it is plentiful and cheap, to the thickly populated mining and manufacturing districts where it is scarce and dear. That it pays well might be inferred from the fact of the companies fixing such tariffs, and that the companies, after paying all interest on their borrowed monies and sinking fund, divide among the shareholders 8, 9, and some 17 to 22 per cent. How this is done, and why each reduction of freight within a limit not yet reached or determined is attended with an increase of profits can be seen from the evidence already given on Prussian Railways to the Royal Railway Commission in London.—*Dusseldorf, Nov. 2.*

**PEAT FOR LOCOMOTIVES.**—Two important trials of Mr. Hodge's peat fuel have been made on the Grand Trunk Railway of Canada. The peat used contained about 20 per cent. of moisture. A train composed of a locomotive and six cars left Point St. Charles with about 3½ tons of fuel in the tender, and run through to Kingston, a distance of 177 miles, 52 minutes in advance of the running time, with 62 lbs. of fuel to spare. The details of the experiments were—distance run, 177 miles; fuel consumed, 3½ tons less 62 lbs.; consumption of fuel per mile, 45 lbs.; maximum consumption per mile between stations, 60 lbs.; minimum ditto, 30 lbs.; average distance run per ton of fuel, 60½ miles; value of fuel, 3½ tons at 14*s.* 6*d.* = 2*l.* 10*s.* 9*d.*; cost per mile run, 7 cents (3*d.*); average speed, including stoppages, 25½ miles per hour. Considered by comparison, the peat seems to occupy a position between wood and coal, and it is believed that when the percentage of moisture is reduced to 10 per cent., peat will head the list. The relative cost of the fuels is—coal, 2-9*s.* tons, at 2*l.* 10*s.* per ton, 7*l.* 7*s.* 6*d.*; wood, 4-1 cords, at 2*s.* per cord, 6*l.* 8*s.*; peat, as stated above, 2*l.* 10*s.* 9*d.*, or about one-third that of coal.

**IMPROVED SELF-ACTING MINE CAGE.**—The inconvenience arising from the demands of workmen render it imperative that employers of labour should offer every encouragement for the invention of contrivances calculated to lessen their dependence upon human aid. An ingenious self-acting arrangement for mine-shafts has recently been patented in America by Mr. G. WILLIAMS, of Sterling, Colorado, the chief object of which is to facilitate the loading and unloading of skips and cages at various levels in the shaft. The power for raising the elevator proper can be the same as at present. The elevator, which may be of wood or boiler iron, is slung by a yoke passing under the bottom, to which it is attached by pivots, to allow the vessel to be tilted or inverted. It is guided in its ascent by rails and lips, and a portion of the front rail is pivoted above the chute, and where it connects with the lower portion is curved to fit a corresponding curve below it. By means of suitable levers this upper portion can be de-

tached from the lower part closing the vertical ascent, and compelling the elevator to turn by means of the roller into the passage to the chute, when by means of the yoke the elevator is tilted sufficiently to discharge its contents through the chute. It can be readily seen that by the suspension of the elevator by the yoke attached to its bottom, instead of requiring additional power at the point of tilting, the weight is shared by the lifting rope and the lower curve on the guide rod.

#### THE ROYAL COMMISSION, AND THE UNEXPLORED ENGLISH COAL FIELDS—No. IV.

BEING A REPLY TO SIR RODERICK MURCHISON'S PAPER, READ AT THE MEETING OF THE BRITISH ASSOCIATION, IN NOTTINGHAM.

BY JOSEPH HOLDSWORTH, ESQ., M.G.S.F., ETC.,

Author of "The Extension of the English Coal Fields beneath the Secondary Formations," &c.

Assuredly it is the peculiar province of the director of an establishment for the cultivation of a particular science to give his best attention to any facts or evidence of importance affecting it, from whatever quarter they may have been derived, irrespective of all *class interests*; and if in his elucidations of its doctrinal points, &c., he manifestly omits to adduce such actual information, it cannot be denied that, in such special cases, his premises are untenable, and he arrives at results by a process of induction the very reverse of sound or "fair reasoning."

And, besides, all attempts to ascertain the thickness of a formation, constituted of a vast series of strata, by admeasurements of what is called the outcrop, often many miles in apparent width, and frequently for the most part concealed by gravelly debris or adventitious clays, must assuredly fail to give anything approaching a reliable estimate of its actual vertical dimensions. In fact, the operations of the miner are constantly presenting us with proofs of the singular inaccuracy of such geological dicta, commonly showing the thicknesses of these class-deposits to have been greatly overestimated. Most obvious it is, then, under such circumstances that all *reliable data* of the latter character should be carefully regarded in forming calculations with respect to the thickness, presence, or absence of any of the deposits geologically superincumbent on the coal measures. And, most certainly, such considerations were entitled to Sir Roderick's special notice, before attempting, as an eminent authority, to promulgate a belief that "the thickness of the supposed rocks of the south-eastern districts renders the working of coal therein out of the question." His dictum, however, for the various reasons above adverted to, it can hardly fail to be seen falls harmless to the ground. And infinitely better it should be so than that it were so far to prove detrimental to the national interests as to have the effect of closing up so vast and promising a field from the test of actual operations by private or public enterprise.

We must not, however, be unmindful that Sir R. Murchison is the elected chief of the official band selected for constituting what is considered to be the scientific section of the Royal Commission, save one independent exception; and, moreover, as already intimated, has on that ground, before it commenced its surveys, chosen to step forth with a formal declaration of his "*a priori* reasons," for the sole purpose of "setting aside the hypothesis" that productive coal fields might exist under our southern and eastern counties. And then, having done this to his own entire satisfaction, complacently tells the British Association that he and his co-commissioners had "simply to proceed to form the best approximate estimate they could of the amount of coal left in the fields which had been so long worked!"

It were superfluous to comment on the summary and incongruous character of these announcements. If the Royal Commission is thus to be induced to limit its pregnant investigations, it will indeed be making short work of its special labours, by leaving untouched avowedly one of the most important points of enquiry—the existence of productive coal beds beneath the younger formations of Britain.

In the present instance we have presented a notable example of the objectionable character of centralisations of intellect, which, in fact, are as inimical to the best interests of a community as is a centralisation of political power to the wholesome progress of a nation. In our own country, unfortunately, the *coteries* of science and literature are but too commonly living embodiments of the principle. Within the prescribed boundaries of these charmed circles mutual acknowledgments, courteous recognition, and gratulation are sufficiently rife; whilst the great external zone is too commonly rendered frigid and barren with cold reserve and affected discountenance from the (scientific) powers that be. In France it is not so, a far more general and liberal system prevails; marked intelligence, however humble its possessor, and the promptings of genius in every grade, find a ready patronage and universal recognition.

The received opinions and dogmas of our scientific circles are often clung to and maintained with extreme pertinacity, regardless of the march of discovery and more enlightened views. The late Professor Fleming, one of the most experienced and profound geologists in Edinburgh, on one occasion related to me a notable exhibition of this spirit in his own experiences. On presenting him with a little work entitled "A Battle with the Basalts," I had just then published in the above city, antagonistic to the Igneous Theory, there cradled, he remarked he was under the impression that he was the only geologist therein who entertained these particular views and opinions, opposed to that popular hypothesis; and added, "If you will come to the Institution on the Mound any day I am lecturing to my pupils you will hear me enunciate facts and doctrines on this subject very similar to those contained in your present publication;" and, requesting to know where I had acquired them, I replied simply by a protracted series of close investigations of the phenomena of the basaltic rocks in this and other countries, especially of those instructive ones in the neighbourhood of Edinburgh; and on my putting a like question to the venerable Professor, he said, "I also became convinced that the Basalts were not of Igneous origin, solely from minute examinations of them in the *Ochils*, where I resided during a period of seventeen years; but," continued he, "although by lectures, articles in magazines, pamphlets, &c., I have strenuously endeavoured to promulgate my opinions thus acquired of the Igneous Theory, I have never been able to provoke or elicit a solitary reply thereto from any one of its avowed advocates. Professors eschew all challenge of it, reviewers refuse to touch its opposing arguments, and the very booksellers seem averse to venture on the sale of opinions not duly authorised!" A little heaven has leavened the whole batch, and the public mind is expected to feed upon it, and to ask no questions.

Upwards of twenty years ago I published some strictures on a lecture delivered in the West of England by the President of a local Institution, on the subject of Osseous Remains in Limestone Caverns, the lecturer having contended for the legitimacy of the geological axiom, that the remains of extinct animals and man were not of contemporaneous origin. Having then but recently visited the South of France, where such caverns and their intermingled fossil contents are not unfrequently found, and having given much attention to the matter, I contended that the opinion thus entertained was erroneous, and that the existing evidences were abundant and conclusive which testified to the contemporaneity of man and the mammoth, &c. For this enunciation I and my paper were ignored, after the most approved method of the eminently skilled in the art of anthropo-phooology; and so the matter rested in its pristine state of infallibility, until of late the Abbeville jaw-bone arose from its fossil tomb, awakening renewed research, leading to still more startling discovery, and now the remains of extinct animals and those of man are pronounced by geological *Sarans* to be of contemporaneous origin! And it is highly probable that evidence may be forthcoming to prove them of much more recent date than geologists at present admit.

And so, indeed, fared it with my repeated published contentions (commenced thirty years ago) for the existence of coal under the younger formations of Central and Southern England. Opinions, though so long scouted by geologists, now attracting their especial attention; and Sir R. Murchison starts up to speak of it as an original, "ingenious suggestion" of a student in the Museum of Practical Geology!

I mention these few instances merely for the purpose of exemplifying that reform is as necessary in our scientific and literary departments as it is usually found to be in all other human institutions.

I have, however, the gratification of embracing the present opportunity of acknowledging the honour accorded my recent publication on the subject in question, by the Mover and Secondor of the address to Her Majesty for the appointment of the Royal Commission, in their speeches in the House of Commons on June 12 last. The former, Mr. Hussey Vivian—an excellent geologist—on the occasion of quoting some passages from it, was pleased to do so in commendatory terms; and the latter, the Hon. H. G. Liddell, remarked that—

"His honourable friend had only done justice to Mr. Holdsworth, a gentleman who had studied and written on the subject of the existence of coal beds under the New Red Sandstone. That gentleman had for thirty years held the theory of the existence of valuable coal beds at accessible depths throughout the midland districts of this country, a theory which he had argued out by induction and proved by facts, although it had met with no inconsiderable degree of antagonism on the part of other geologists. It was not to be expected that the Government would carry on costly experiments, or make borings at a great expense to the public, in order to discover the truth on that point; but he believed it would only be necessary to direct public attention to Mr. Holdsworth's views in order to stimulate that individual effort which he was convinced would not be found wanting."

Although it is trusted that in the course of the above explications it has been abundantly exemplified, inductive geology is in favour of the existence of large areas of productive coal seams beneath unexplored districts of England, occupied by more recent formations, it is, nevertheless, sufficiently obvious such facts can alone be proved by actual experiment, judiciously applied and skilfully executed.

The researches of the scientific, and the labours of the practical operator, should ever act in harmonious co-operation for the successful development of all great and important results. If the eye of faith is dim, the lamp of science can light up many a dark recess, and guide the adventurer on his dubious way, until his physical efforts culminate in the establishment of often invaluable *evident proofs*. Science itself is, in fact, essentially practical. All correct science has no other end than that of soliciting Nature to disclose her secrets, that they may be applied to the advantage of humanity, in improving industrial pursuits. Science, in its ordinary acceptation is knowledge, and its legitimate end is *truth*.

And well it is when her notable votaries can say they have alone mounted to her hallowed temple on the stepping-stones of truth; and that when well planted there are the courteous and humble dispensers of her ennobling and instructive demonstrations. It, however, not unfrequently happens that her professors are rather too much addicted to glory in their own profundity, if not to arrogate to themselves the papal prerogative of infallibility. But all such contracted and exclusive manifestations serve only to circumscribe their sphere of public usefulness, and to diminish that high consideration and respect to which the gifted man of science is ever eminently entitled.

In a progressive science like geology, the most cherished axioms and opinions of its devotees are ever subject to be dispelled by the developments and discoveries of the most ordinary operator; its magnificent and ever-varying field is as yet but very partially explored, and it may require generations of deep research and diligent investigation before it is a complete science. Laplace's aphorism of "It is the little that we know; it is the great that remains unknown," may truthfully be applied to geology. No, nor will it ever be given to man to know all the works and ways of God. It has been well remarked that, with all our boasted discoveries and pride of science, perhaps these are as little known to us as the unbroken forest to the microscopic insect, whose life is a day, and whose world is a leaf—that little decaying leaf, the scene of its most distant journey, its country, its cradle, its grave. With what modesty, then, should the highest intellect bow down and bear itself in the presence of its Creator.

I would observe, in conclusion, that the information sought to be obtained by the appointment of the Royal Commission is of paramount importance to the best interests of the nation; happily, under the able presidency of His Grace the Duke of Argyll, it is composed of men eminent for their scientific attainments and practical knowledge, and who, it is trusted, will not content themselves with cramped and partial views of the grand field of their special labours, which, it hardly need be said, will decidedly be the case if they act on the authoritative suggestion of "simply proceeding to form the best approximate estimate they can of the amount of coal left in the fields we have so long worked." This, verily, is a vital question, but it scarcely bears comparison with the other specified point for investigation—the existence of productive coal beds beneath the younger formations of the kingdom. Under present circumstances, it will not be possible, in a general sense, for the Commission to come to any actual decision in this matter; should it, however, arrive at conclusions, with regard to very extensive areas in the new districts in question, discouraging to the enterprising explorer, it may be the means of keeping closed the gates of discovery for centuries to come in vast areas which induction points to as probable repositories of untold wealth. Sir Roderick's paper—as coming from such an authority—is eminently calculated to be productive of such obstructions as regards nearly the whole expanse of Central and Southern England! Some may affect not to regret this, as not immediately bearing on common or personal interests, but all such are narrow and mistaken views of the question; for although many of the pioneering coal trials may from one cause or other prove unsuccessful, we should not be unmindful that the discovery of but two or three of these distinctive new sources of productive wealth would indubitably exert a most material influence in our present domestic arrangements, not only as regards the economic use and exportation of coal, but would impart additional power and impetus to the great current of industrial enterprise, directing it anew into a thousand fertilising channels—all tending to the enhancement of our present signal prosperity, and to the future stability and welfare of the nation.

#### REPORT FROM SCOTLAND.

**GLASGOW, NOV. 7.**—The depression which closed the week in the Pig-Iron Market was of short duration, and on Monday warrants were wanted at 52*s.* 6*d.* cash, with sellers rather indifferent about doing business at that figure. Yesterday the market kept firm, with a rebound up to 53*s.* cash, and buyers over, while sellers held for 53*s.* 1*d.* During the month stocks in store have been reduced upwards of 30,500 tons, and there having only been 94 furnaces in blast, against 136 in October of last year, the stocks must now be reduced something near 100,000 tons since the beginning of the year. In Connal and Co.'s store there were on the 31st ult. 336,895 tons, and in the Canal Company's, 38,473 tons; last year there were in the former 324,330 tons, and in the latter 24,818 tons. During the week the shipments were 14,375 tons; same week last year, 10,250 tons, which reduces the decrease on the year to 84,190 tons. The following are the monthly averages:—

	1866.	1865.	1866.	1865.
January	66 <i>s.</i> 4 <i>d.</i>	49 <i>s.</i> 9 <i>d.</i>	June	54 <i>s.</i> 0 <i>d.</i>
February	71 1½	50 4½	July	53 0
March	77 3	50 10	August	52 6
April	78 4	53 9	September	54 8
May	57 0	54 1	October	54 3

To-day the market was very firm, and a fair business was transacted at 53*s.* 6*d.* to 53*s.* 9*d.* cash, 54*s.* a month, closing buyers at the highest, sellers 1*d.* more. In Malleable Iron there is almost a stagnation of business, and orders are not to be had even when quotations are made which are known to yield a mere nominal profit. The greater portion of the works are on half time, and some are only employed a few hours a week.

Coals of the best descriptions are not in demand; and, as the ironmasters have not an outlet for their output, they are sending them into the market for sale. This is preventing prices from being kept up, and the consequence is that the sale coalmasters will have to reduce their prices 1*s.* per ton, and the colliers wages 6*d.* per day. The Cornish miners who have arrived here have been distributed partly in Ayrshire and partly in Gartscherrie, where their comfort and their wants have been liberally attended to. Of course, the colliers are wroth at this invasion of their domains; and the depression in the shale oil trade having liberated a few hundred workers, the colliers are beginning to see that their cards have not been so amazingly well played after all. The coal shipments of the week are 26,815 tons; last year they were 23,766 tons for the same week.

As the workmen of Mr. Hugh Kennedy, under the superintendence of Mr. McDonald, were engaged in excavating the track of the Greenock and Ayrshire Railway, about a mile south-west of Port Glasgow, during the operation of blasting the rock there was exposed to view by the shot a hole, beautifully

lined with a very rich white spar, which presented a sight seldom seen. The full dimensions of the hole or cavity could not be ascertained, owing to the shot having taken away part of it, but what remained in a perfect state might be described as an oval cone, about 2 ft. in length, lying in a horizontal position, pointing north and south, and about 18 feet below the surface of the rock. A piece of the spar is in Mr. McDonald's possession, and has been seen by a number of persons, all of whom have pronounced it to be very rich and rare.

The shipbuilding trade on the Clyde last month has been carried on with somewhat more energy than during the three preceding months, owing to the termination of the unfortunate lock-out. The work on hand, however, is fast running out, and unless a change takes place in the command for shipping it is probable this trade will be very dull during the winter. The number of vessels launched last month, as compared with the corresponding month in the two preceding years, was as follows:—

	Vessels.	Tons.
Month ending Oct. 31, 1866	22	12,000
" " " 1865	25	13,630
" " " 1864	17	13,410
Ten months ending Oct., 1866	162	95,700
" " " 1865	218	127,000
" " " 1864	182	146,300

The Peninsular and Oriental Company have purchased from Messrs. W. Denny Brothers, Dumbarton, a screw steamer of fully 2200 tons, with engines of 500-horse power; price not transpired.

**CORNISHMEN IN THE COLLIERY DISTRICTS.**—Some of the papers contain complaints from the old hands at the pits that favouritism in work is shown to "Southerners"—miners imported from Cornwall; and that the latter are so unskilled in the work, and so incautious in the use of the safety-lamps, and ignorant of the proper means of regulating them, that danger results to the whole body of miners, and the old hands are afraid to work in pits with some of them. This is in part ascribed to jealousy, but it is very justly added—Colliery proprietors should not risk the lives of those in their employ by employing inexperienced men in position of danger. Pitmen have to be trained to their work, and it cannot be expected that miners from a distance, who have never seen a colliery in their life before, should take to "hewing" instinctively. Pit owners owe it to the men whom they bring from other parts of the kingdom, as well as to those previously in their employ, that the former should be fully instructed in all matters appertaining to their new duties before they are placed in a position to imperil, not only their own lives, but the safety of those around them. Were the colliery hands to go to the metal mining districts of Devon and Cornwall they would find that with all their coal hewing experience it would be a long time before they would be able to compete with the men whom they now under-stand in their own proper work, and would be deemed incompetent. As a class the tin and copper miners of the West of England are surpassed by no other body of miners in England for intelligence, ability, civility, and good conduct; and, indeed, they far excel the men of many of the mining districts in all these qualities. But tin and copper mining resembles coal mining just as much as masonry does carpentry. In both the sphere of labour is underground, but, as regards everything else, the training required is totally different, and it is quite a foolishness to find fault with a Cornish miner accustomed to work by the light of a naked candle for not knowing how to manage a "safety" as it would be to laugh at a Durham pitman because he did not, in Cornish phraseology, "know tin" when he saw it, nor could not distinguish between iron and copper pyrites.

**NEW MODE OF PROPELLING VESSELS.**—Mr. William Watson, of Johnstone, has so far perfected his invention for the propulsion of vessels on canals, ferries, and shallow streams, that a trial of a small model, propelled by his method, took place on the Glasgow, Paisley, and Johnstone Canal, in presence of a number of practical gentlemen, and the manner in which it did its work assured hope for the undertaking. The weather was extremely frosty and cold, and from the exposed state of the steaming apparatus in the model its power was much weakened; yet, notwithstanding this, and the smallness of the engine (it being barely commensurate to the size and weight of the model), it went at the average rate of four miles per hour. The model is of light sheet-iron, 18 in. in length, 2 ft. in breadth, and 1 ft. 6 in. in depth, and was immersed during the trial 9 inches. Her weight, including all she carried, was 5 cwt. Inside and about the keel is a water passage from stem to stern, 3 in. by 2 in., at the extremities of which are two small pumps, the one at each end, which is neither more nor less than a rotary pump of the simplest construction, is placed, and draws in the water at the low opening and ejects it at that of the stern, when going ahead, and vice versa when going astern, and this drawing in and injection of the water constitutes the motive power. The propeller is 9 in. in diameter, 3 in. deep, and has two blades 3 in. by 2 in. (one of these only works at a time), and the distance from the centre of the propeller to the centre of the blade is 4 in. It was driven by a small engine with 3 in. cylinder, and the same length of stroke, and worked at 22 lbs. available pressure, under which it attained the speed noted above. When moving stern foremost the speed of the model was slightly greater than when going bow first, but this may be accounted for by the necessarily imperfect state of the model and the smallness of the engine. The whole trials, however, proved it to be most suitable for canal boat propulsion, and has, in fact, attained the end which the late Mr. W. Houston, of Johnstone Castle, laboured so many years to effect. The propeller produces no agitation in the water that could injure the banks or bottoms of any canal, and the trials suggested the form of bow necessary for canal boats, as when going ahead the water commonly seen at the head of boats was raised, but when going stern foremost there was only a slight ripple, diverging in straight lines from the point of contact to the canal sides. Canal companies could not do better than give this invention a trial, as it is evidently well adapted for the purposes intended by Mr. Watson. One peculiarity of it is that it provides for the steering of the vessel, and runs her backwards, forwards, and sideways without a rudder, and can bring her alongside any wharf, quay, or embankment, and keep her there without moving. As a motive power it deserves the attention of the Admiralty, as during naval warfare there has always been a difficulty in moving ordinary war vessels from one point to another with sufficient rapidity, and along shallows—all which this simple contrivance seems capable of effecting. It is hoped that Mr. Watson's time, trouble, and expenditure of labour and money will be rewarded by his invention being applied to the propulsion of ships of all classes.

#### REPORT FROM NORTHUMBERLAND AND DURHAM.

Nov. 8.—The Coal and Coke Trades continue as last reported: the best house and steam coal trades continue good, but many of the coking and manufacturing coals are at present rather difficult to be got rid of. Should this continue any length of time the prices must give way, but, as the probability is that the number of mills and puddling-furnaces at work will now be rapidly increased, the demand for coal must shortly improve. The strike at the Sunderland Iron-works is at an end, the men having on Monday gone in at the reduction of 10 per cent. The number of men at work at Witton Park, Jar-row, and some other places is also rapidly increasing. At Witton Park some rioting has taken place in consequence of the strike, and several men have been committed for trial at the Assizes. The Iron Trade is certainly at a very low ebb throughout the district, and although the number of furnaces at present in blast is only 90, and no less than 51 are out of blast, the price of pig-iron at Middlesbrough is only 48s. for No. 1. In addition to these furnaces, there are 16 in course of repair and building, so that the pig-iron at present produced is little more than one-half the quantity that the district is capable of yielding.

I had an opportunity of inspecting a model of the Ventilator of Mr. Lemielle, in Newcastle, on Saturday, and have no hesitation in saying that from the appearance of the machine, and the accounts given of its performance in Belgium and France (the said accounts being furnished and vouched for by eminent authorities), this machine is one of the best, if not the very best, ever introduced for the purpose of ventilating mines. The main distinction between this machine and others appears to be what are termed "pneumatic wings," these wings performing the office which is done by the "vanes" in other machines. These "wings" of Mr. Lemielle appear to be a very important invention. It is hardly possible to avoid noticing that "vanes" have a paltry appearance, and, perhaps, in their use there is more or less uncertainty as to the air being really propelled in the right direction, but this is entirely obviated by the "wings," as they really take firm hold of the air, and must displace a quantity equal to the area of the said wings. There is also an appearance of permanence and stability about the whole machine which can hardly be found in other machines. The quantity of air extracted by this machine, as vouched for by French engineers (and the trials were witnessed by Mr. J. Higson, the well-known English mining engineer, and also by Mr. Ellis Lever, a Manchester gentleman of considerable experience), is something enormous. The trials were made at the Boussu Colliery, near Mons, on Feb. 11 last. The diameter of the circle in which this machine moves is 23 ft. 4 in.; the height of the body is 16 ft. 4 in., and the width of the wings is 8 ft. 2 in. With a speed of 10 revolutions per minute, this machine extracted 33,603 cubic yards of air per second, or 54,436,860 cubic feet per minute. With 18 revolutions per minute, 53,320 cubic yards was got per second, or 86,378,400 cubic feet per minute. It must be admitted that these figures represent large quantities of air, and it must also be admitted that the opinion appears to gain ground that, especially in shallow mines, a good ventilating machine possesses greater power, and consequently in some respects is superior to the furnace. But it must also be borne in mind that the use of machines here can only advance very slowly, and great caution will certainly be used in their introduction. The reason for this caution is simply the fear that the machine may be stopped from accident or breakage at any moment; at any rate this is the main reason why it is opposed. The furnace is not only powerful, and capable of maintaining ventilation, but it is regular and steady in its actions, and not at all liable to derangement. When a furnace is actually extinguished the ventilation in a deep mine proceeds with little alteration for a considerable time—for several hours in fact, and this is considered a great advantage. However, in shallow mines it appears that ma-

chine ventilation is much more powerful, and it is possible that machines may become of much importance if introduced to work in conjunction with, or as an auxiliary to, the furnaces, as this arrangement would ensure safety in case a break or stoppage should take place with the machine.

The explosion at the Pelton Colliery has, of course, caused a good deal of excitement. It was one of a very violent character, and there can be no doubt a most unlooked-for occurrence. According to common report, the seam was exceedingly well ventilated, and all the arrangements for working and ventilating the colliery were of a first-class character; and as the seam was, on account of its fiery character, worked exclusively by means of locked safety-lamps, the event assumes a very mysterious character. First, looking at the powerful ventilation, the fact that gas had accumulated in considerable quantities, which is proved from the explosion, appears to be most puzzling; and secondly, the mode by which the gas was ignited is another mystery, which will, perhaps, never be cleared up.

The adjourned inquest on the bodies of the men killed at the Pelton explosion was held on Wednesday. The first witness examined was Mr. William Armstrong, the head viewer, who gave a detailed account of the position of the mine, and the arrangements for ventilating and working the same. The quantity of air got by the furnaces formerly used for ventilation was 31,720 cubic feet per minute, with a water-gauge of 9-10ths of an inch, which was the utmost that could be got by the furnaces. The machine at present used with a water-gauge of 2½ in., produces 96,488 cubic feet per minute, and when the machine is worked up to a water-gauge of from 2½ to 3 in. from 91,000 cubic feet minimum to 106,000 cubic feet maximum per minute was produced. In the Busty seam, where the explosion occurred, the quantity of air in circulation was, when last measured, 23,290 cubic feet per minute. The south district, where the occurrence took place, is within seven acres, and the north district four acres. Only locked Davy lamps are allowed to be used on the south side. The men fired shots, but this was only necessary in the exploring places, as the coal is quite tender in the other places. The deputies have to inspect the places before the shots are fired, and when the place is all safe the shot is fired by means of a wire, which is put through the guaze of the lamp and made red hot, and this is applied to touch-paper, which explodes the shot. On the morning of the explosion the wall in the fifth bord was holed into the next bord by the bower, and a passage made through, and there were several falls from the roof about that time. The ventilating current which passes into the south district is 14,000 cubic feet per minute. All the lamps used in the south district have been recovered, and all of them are locked, and all found in a perfect state. As to the cause of the occurrence, it had been suggested that gas had accumulated behind the old fall in the sixth bord, and that the hole made on the morning of the explosion had diverted the course of the ventilation, and so a body of gas had been formed.—A Juryman asked whether the rule with respect to the deputies being present at the firing of the shots had not been broken in the pit?—Witness said, not to his knowledge.—Atkinson Morgan, a hewer, was examined, and said he was in the far south bord the day previous to the explosion, and fired his own shots; they were fired with wire and touch-paper.—David Aynsley, another hewer, gave similar evidence as to the firing of shots.—Wm. Jackson, the man who had charge of the engine which drives the fan, proved that it was driven as usual during the whole of the night and up to the time the explosion occurred.—John Smith, stone miner, said he heard the deputy, Mr. Gray, caution a man named Taylor; this was during the night before the occurrence. He (Gray) said that if he wished to hole his place he must keep his lamp back from the south, (This was the 2th and 6th bords). I asked him if there was any gas in the place, and he said he was very bad indeed. This took place at the bottom of the shaft.—George Douglas, hewer, said, I was present when Gray cautioned Taylor about the place he was going to hole into. He said, "If you hole the wall, you will have to shift your lamp back."—Mr. S. B. Coxon, viewer, of Usworth, said he had examined the pit, and found a little gas in the south headings, but none in the bords. I examined all the indications of the explosion, and concluded that it took place in the western south heading. There was no indication of a blow, and I think the gas must have come from a bottom bord. The only way I can account for the explosion is that Richardson, the man working there, had found his lamp on fire, and removed it so hurriedly, and gave it such a velocity, as to force the flame through the meshes to the guaze. It would have to be moving at a high speed to make the gas fire at the lamp, but that is the only opinion I can give.—Mr. G. W. Southern agreed with the other witness that the gas had come from the fallen bord on the west side of the south headings and passed away on the air current, but he did not think that the lamp had exploded; he knew that a great heat was required to make the flame pass through the meshes of the fan, and he also agreed with the action of the fan.—Mr. Atkinson addressed the jury. He agreed with the former witnesses as to the origin of the gas, but he did not agree with the opinion of Mr. Coxon, that the flame had passed the meshes of the lamp. He was at a loss to account for it. He considered the ventilation to be first-rate, and fully approved of the introduction of the fan.—The Coroner briefly summed up, and the jury, after an absence of about a quarter of an hour, returned the following verdict:—"Jonathan Madisson and others were killed on Oct. 31, 1866, from an explosion in the Busty seam of Pelton Colliery, but the cause of the explosion we have no evidence to show. We also give an opinion that negligence has been manifested by the officials down the pit in not enforcing the rules, and also on the part of the men in not carrying them out."

**MESSRS. FOX, HEAD, AND CO.**—This firm of ironmasters, in Newport, Middlesex, having offered to open their works on the co-operative system, it may be interesting to know where the works are, what is chiefly manufactured at them, and the wages of the men previous to the present dispute. The works occupy an area of about three acres; the firm, however, are in possession of something like twenty acres of land. The Stockton and Darlington Railway is close to the works on the south, the Tees runs past their frontage on the north, and there are blast furnaces on the east and west sides. There are 30 puddling and 10 mill furnaces. Boiler plates, ship plates, and bridge plates are the principal articles manufactured. The puddling is shingled by means of Morrison's steam-hammers. The forge train is worked by reversed gear. All the furnaces are well separated, care having been taken to supply plenty of air to the puddler. There are two plate mills, one with reversed gear, and the other with single gear. The shearing is accomplished by two 6-ft. cut Liffelshale shears. A line of railway is there, so that there is no need of horse power in loading up. There are also punching machines, and steam and other shafts for cutting up puddled iron. The fettling used at these works is tap and under and selected Swedish magnetic ironstone. The puddlers can average six heats a turn, making about 24 cwt. of puddled bar. When in full operation, the works require about 400 men. Two plate mill rollers in the reverse mill earned, from July to December last year, 29. 0s. 2d. per day net; they worked in the six months 120 turns. Two plate mill shears averaged 218. 1s. 11d. gross during the six months; they worked 120 turns, gaining 16. 16s. 4d. per turn; out of this they had to pay 10s. 10d. for the scrap, and 10s. 10d. for the oil, and had themselves 17. 2s. 4d. per day. The mill furnaces averaged 12s. 8d., and the puddlers 18s. 8d. per day net. The forge rollers clear 19s., and the shinglers 18s. per day net. The prices for shingling, forge rolling, and shearing, are lower at these works than any in the district. The high wages earned by the plate rollers is due chiefly to the improved mechanical appliances.

**THE SHALE-HEAP.**—Upwards of twenty years, to my knowledge, have gradually passed away since the hammer and chisel were first employed in foliating the black shale of our coal measure, to lay open to view the mutilated remains of fossil fish with which it is so pregnant. During this time many have directed their attention to this branch of geological science, but very little more than an elementary knowledge of it has as yet been obtained. To the enterprising scientific explorer, who has time and opportunity at command, is opened a wide field for study in this branch of science. Although we cannot all be discoverers of new things, yet anyone who has any taste for the subject may profitably spend part of his time in splitting the shale, for it offers the same advantages now as when it was first opened out. It is true a visitor may come to one of our shale-heaps and split away for almost a whole day without meeting with anything particular as a reward for his labour, but the next day might be repaid for his trouble, if he had only examined the shale, not only at this, but at most of the neighbouring collieries, and have found about the same kind of fossils. Sometimes they may be found in abundance, at others they are rare, thus proving beyond a doubt that the fish must have perished in shoals. It has been asserted by some that it can easily be known by looking at a piece of shale whether or not it contains any fossils. Than such a statement, I think, nothing could be more absurd; as well say that by looking at the outside of a chest its contents may be known. Nature is not so lavish of her secrets; if we wish to hold converse with her we must open her leaves, or, in other words, split open the shale, and know what fossils she has concealed there. While examining through the microscope some polished sections of bone that I have taken out of this shale, I have detected teeth so very minute that to the naked eye they would have been quite invisible. Others that I have found and kept for my cabinet are about 1¼ in. in length, but these are exceptional ones; for it is a much easier task to find 100 small ones than to find one the length I have stated. All these teeth, when the shale is removed from them, present a most beautifully dark and shining appearance, showing very clearly their enamelled surface. I have found some very curious teeth in our shale heaps, with a large piece of enamelled substance at the point, which, when ground and polished, become an object of great interest to the microscopist. Jaws, spines, gancula scales, or scales with a hard and bright surface, and long pieces of bone, should always be taken, for a visitor to the shale-heap may rest assured that they are not always to be found. In a short time I shall be glad to exchange these fossils with anyone who may be desirous of doing so. In different parts of the country there may be a variety, and I shall most willingly "give and take" from anyone who may feel disposed.—JOHN SIM: West Cramlington.

"Elfin," the local correspondent of the *Newcastle Daily Chronicle*, says—"The details of the sad accident at Pelton need little comment. No colliery explosion upon a large scale has occurred in this district for some years past, which is no doubt owing to the improved mode of ventilating and managing mines. The greatest skill and ingenuity of our mining engineers are, however, not capable of avoiding entirely such calamities as occurred last week. All that can be done is to take every reasonable precaution to prevent accidents, and when they do occur to do the best that is possible to alleviate the sufferings of those who are affected by them. In the case of Pelton mine, I believe, cannot be attributed to anyone. The explosion, so far as my information goes, was entirely accidental, the colliery being one of the best ventilated and managed in the district. Mr. John Risdon, the under-viewer, who has the management of the pit virtually under his command, is one of the best practical pitmen in the North of England. He is an extremely hard-working man, and he has been known never to have been in bed for a week together when he has had any difficulties to contend with in the working of the colliery. The ventilation of mines is a special study of his, and he is understood to have perfected and put in force at Pelton one of the most superior systems known. Every precaution has been taken for the safety of the men at the colliery, and for the comfortable working of the mine. The Busty seam is a very gaseous one. When a shaft was sunk from the Hutton to the Busty seam they were obliged to fix a metal pipe, 4 in. in diameter in the bore-hole, to allow the accumulated gas to escape, and out of this pipe a column of flame, varying from 4 ft. to 8 ft., burned continually night

and day for upwards of six months. The Pelton is one of the best gas coals in the district, and the colliery itself is understood to have been a highly profitable concern. Out of evil good sometimes arises; and I hope that this unexpected and sorrowful accident may be the means of inducing a larger number of our pitmen to enrol themselves as members of the Miners' Permanent Relief Fund, of which Mr. A. Blyth, of Dudley Colliery, is the efficient and respected secretary.

#### REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

Nov. 8.—The Iron Trade in both divisions of this county continues in the depressed state previously noticed. There is still a good demand for sheets, and a fair one for hoops, but plates are very little in request, and common bars are in equally little demand. There is no special change, and from the near approach of winter improvement is regarded as not very likely on this side of Christmastide. The Hardware Trades are dull, and some slight improvement in certain branches only serve to prevent men from being thrown out of work. Messrs. James Russell and Sons, of the Crown Tube Works, Wednesbury, have suspended payment. Mr. John James Russell, it may be remembered, was the prosecutor in the case which lately excited so much attention, in which the London agent of the firm was charged with extensive embezzlement, but not convicted, on its appearing that Mr. Russell had given him secret directions as to the payment of money to meet liabilities on account of speculations which he kept a secret from his family, and those concerned in the works. The failure is ascribed to calls on the New Zealand Bank, in which one of the partners was a shareholder. It is hoped that the works may be carried on, and the creditors get a good dividend.

The proposed New Code of Colliery Rules for South Staffordshire and East Worcestershire, suggested by the Inspector of the district, with the approval of the Secretary of State, have for the last few weeks been under discussion by the members of the coal and iron trades, assisted by the mine agents of the district; and at a recent meeting of the trade held at Wolverhampton, and called for that purpose, it was decided to postpone their consideration or adoption for six months, in order to ascertain if any suggestions for their improvement are contained in the Blue Book emanating from Mr. Ayrton's committee, who have recently taken such a large amount of evidence upon the alleged complaints of colliers throughout the kingdom. Of course this adjournment must be considered by the Secretary of State, who set the matter in motion. A meeting of mine agents, whose responsibility the amended rules will increase, is called for the 19th inst. to consider the proposed alterations.

An accident resulting in the loss of two lives was the subject of an investigation before a coroner and jury at Walsall, on Monday. It occurred at the colliery of Mr. W. Harrison (a county magistrate), at Brownhills, on Oct. 24. The two deceased men were repairing the barrel in the pumping-shaft, and were suspended some 50 yards down the shaft, being slightly raised or lowered from time to time, according to the work they were doing. The engine at last did not work, and on the banksman going to the engine-house to see what was the matter he found that the engine was fixed upon the bottom centre, and at Baugh's request he took hold of the gears while Baugh went to the fly-wheel for the purpose of forcing it round and lifting the engine off the centre. What was done to the fly-wheel he could not tell, except that it was lifted off of gear; but on looking out of the window he saw the chain slipping rapidly off the drum down the shaft. The two unfortunate men, Benton and Baugh, were precipitated to the bottom of the shaft, which is about 120 yards deep, and the chain falling upon them, they were killed on the spot. The machinery was subsequently examined by Mr. E. T. Wright, engineer, and the Government Inspector, both of whom were at the inquest, and was found to be in anything but a satisfactory state, the slot-holes at the crank and of the fly-wheel shaft being ascertained to be unplugged, and being believed to be in a similar state at the other end, the drum-shaft being out of its original position by as much as ¾ in., and other irregularities being perceptible. They were of opinion that something had either got between or had been placed between the cog-wheels, which had forced the drum-shaft out of gear; that the lock-nut which holds the wheels in gear had not been brought up to its proper position, and that had the means provided for fastening the drum been properly applied the winding machinery would not have got out of gear. A witness, named Tucker, was called, who deposed that prior to the accident he saw that Baugh had placed a piece of timber between the cog-wheels for the purpose of tightening his labour in drawing up or letting down the men, and warned him against the danger of the practice. After the accident he expressed a hope that this practice had not been adhered to, and Baugh appealed to him, "for God's sake," to say nothing about it. Baugh denied that he was using the timber, as alleged, at the time of the accident, which he attributed to the engine being partially new and unfit for the work to which it was being put, and being destitute of either a break or plug in the slot-holes. Mr. Wright admitted that there had been an adequate break, and had it been instantly applied, no doubt fatal consequences might have been averted. Eventually the jury returned a verdict of "manslaughter," against Baugh.

It may be observed that the proprietor of this colliery has been previously fined for not having provided a break at the same colliery, but not to the same engine, which is a new one.

On Friday last a man was killed at Wednesbury by a distinct infringement of the Special Colliery Rules. It occurred at a colliery belonging to Messrs. Lloyds, Fosters, and Co. Contrary to the rule, which only allows powder to go down a pit in canisters containing not more than 5 lbs. each, there was a powder magazine cut out of the coal, and as a youth 15 years old was giving out powder, which was his regular duty, some of it ignited; he was killed, and others much injured. An inquest, at which Mr. Baker, Government Inspector of Mines was present, was held on Monday, when it appeared that the powder had been sent down in barrels for 12 months. The enquiry was adjourned.

At the Burslem Police Court, on Tuesday, Mr. G. Sale, manager of a colliery at Chesterton, acknowledged to having neglected to give notice to Mr. Wynne, the Mines Inspector, of an accident, and as it was evidently an inadvertency was only fined 10s. and costs.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

Nov. 8.—Since last report there has been no material change in the South Wales Iron Trade; still the little alteration that has taken place has been on the side of improvement. The year is drawing towards its termination, and as it is not expected there will be any revivification of spirit evinced in home transactions ere 1867 has made its appearance, attention is principally directed to the American and other foreign markets. The exposure in connection with the North British and other railways has greatly impeded the development of the feeling of confidence which was gradually taking place in commercial circles, the want of which has rendered almost nugatory the present cheapness of money, and it will take some time before its deterring influence will be removed. As a natural sequence, makers are doubly cautious as to the nature of the transactions they enter upon, believing that a small and safe trade is the best policy to pursue under existing circumstances. This circumspection is not confined to the home trade alone, but it is likewise adopted in almost all business transactions with the foreign markets, as stated in last week's report. The home requirements are, doubtless, rather heavy, and orders will be given out as circumstances permit, but the general opinion is that the bulk of them will be kept back until the close of the present or the commencement of the next quarter, when it is hoped that trade generally will be characterised by a much larger amount of confidence and prosperity. At present matters are very quiet, and orders for both rails and bars come in on the most limited scale. During the past week the exportation of iron has been almost entirely confined to the United States, Sweden, and Italy, and it is expected that between the present time and Christmas a rather large quantity will be cleared out of the South Wales ports for the first-named country, as American specifications are being placed with a greater degree of freedom, and in most cases a prompt delivery is requested—a significant sign that Transatlantic buyers "rather guess" that the possession of office by the Republican party will render more likely the passing of the prohibitory import tariff bill.

South Wales continues to receive its fair share of orders from Canada and the adjoining British provinces, and there is every prospect of the spring trade being a good one. From Russia the advices are very favourable, and, should orders continue to be placed from that country as they have been of late, the exports for the Baltic next season will be almost, if not quite, equal to those of the past. Of late business with India has ruled, on the whole, flat, and the hopeful prospects at one time entertained were blighted by the financial panic and other circumstances. Those, however, having in a great measure passed away, there is a probability of the Indian markets yet giving us a very good turn, especially for railway iron. With the Continent transactions are of an average character, but a large accession of business is expected on Italian account, when once that new kingdom becomes more firmly consolidated, and its resources more developed. In pig-iron there is not much doing, and there are no indications of any improvement taking place in quotations. The tin-plate works are kept fairly going, and makers are tolerably well off for orders. There is a good American demand, and it is thought

that, should makers be able to maintain present prices till the spring, an upward tendency will take place. There is a large demand for steam coal for the foreign markets, especially for the Mediterranean, the West Indies, South America, and the East, for which considerable quantities have been shipped during the past week; in fact, the demand has been so good, and is likely to continue so, that at several pits they are sinking to the lower measures; and the Cyfarthfa Works, which have always been conspicuous for their absence from the list of steam coal shippers, have entered the market with coal similar in quality to the celebrated Aberdare. On inland account an extensive trade is being done. House qualities are in rather active request, and as the cold weather approaches there will, doubtless, be an increased demand.

Some time since the Downlaish workmen objected to the appointment of medical men by the company, claiming that duty for themselves. In carrying out their ideas they went so far as to threaten a strike, and the resident trustees at last stated the intention of the company to allow the men to choose their own medical men, to close the schools, and do away with the fund; in fact, to put the men in the independent position they desired to be placed. This decision led the thinking portion of the workmen to ponder on the course that had been taken, and to consider the evils likely to arise from the new state of things, and the men petitioned to continue matters as they were. Upon this Mr. Clarke had an interview with the men, and the result was the difficulty assumed a peaceful termination, by the company agreeing to the petition.

In many instances a large amount of jealousy has been exhibited in the Aberdare Valley against the Cornish miners who have migrated there, and been employed at the collieries. To such an extent has this feeling been displayed, that last week it was discovered at a large colliery in the valley a plot had been laid for the waylaying of a number of Cornishmen, with a view of stoning them into a sense of the wrong they were inflicting on Welsh colliers. On Saturday night it is stated a body of police were employed to watch a batch of Cornishmen who would not be leaving work till 12 o'clock, but nothing occurred to tend to a breach of the peace. It appears that the Cornishmen have given offence by being guilty of working after hours. It is to be hoped that the feeling will soon die out, and that as there is plenty of work for all parties, both Welshmen and Cornishmen will work together in unity and peace.

The Newport Dock Company half-yearly meeting was held this day (Thursday), at the company's offices (Mr. W. S. Cartwright in the chair). The report showed that during the last half-year there was shipped 215,572 tons of coal, and 64,960 tons of iron, against 158,390 tons of coal and 46,644 tons of iron shipped in the corresponding half-year of 1865. In moving the adoption of the report, the Chairman alluded to the increase in the exports of steam coal, and stated that in order to meet the increased trade a new coal staith had been ordered to be erected on the west side. The report was adopted, and a resolution was passed authorising the payment of the usual interest of 1% per share on the first preferential shares, and that 12 months' dividend up to March 31, 1866, be paid on the 2½% preferential shares (Act 1864). A vote of thanks having been accorded the Chairman, the proceedings terminated.

The Foreman and Cwm Noel Collieries were sold by the directors of the United Merthyr Collieries Company (Limited), some few months since, to Powell's Duffryn Coal Company (Limited), and it was determined to wind-up the former company. Calls have since been made on the shareholders, but the latter have declined to pay, and they have formed an association with a view of seeking redress from the directors of the new company, and of subsequent management, and also to resist the payment of the calls. From 70,000l. to 80,000l. was lost by the company in those two collieries, so it is not at all surprising that the shareholders are dissatisfied.

The arrivals at Swansea include—The Hannah, from Pomarion, with 120 tons of copper ore, to order; the Liberté, from Camillas, with 170 tons of zinc ore, to order; the Emily Coulet, from St. Malo, with 60 tons of iron ore, to order; the Anna et Agath, from Santander, with 180 tons of zinc ore, for E. G. Stadler.

**COAL PIT EXPLOSION AT DOWLAISH.**—A dreadful explosion occurred at Fuxton's coal pit, Downlaish, on Thursday, by which six men were burnt, two, it is thought, fatally. —*Cambrian Daily Leader.*

**THE INSTITUTION OF CIVIL ENGINEERS.**—The session of this Institution will be commenced on Tuesday next, when two papers will be read and discussed respecting the employment of steam-power on canals; one, by Mr. W. B. Clegg, detailing the results obtained on the Gloucester and Berkeley Canal; the other, by Mr. Samuel Healey, recording the experience derived from the use of that power on the Grand Canal, Ireland.

**MANCHESTER GEOLOGICAL SOCIETY.**—The annual meeting of this society was held on Oct. 25, at the Museum, Peter-street, Mr. E. W. Binney, F.R.S. (President), in the chair. Mr. J. E. Forbes, F.G.S., one of the honorary secretaries, read a report of the council, which touched upon the various matters of interest arising at the monthly meetings, and which have been mentioned in the Journal from time to time. The financial statement showed that 1197 10s. had been received in subscriptions during the year, the balance in hand being 1112 18s. 5d., against 1211 4s. 2d. last year. The curators' report was also handed in, containing a list of the books and specimens given to the society during the year. The reports were adopted and ordered to be printed, and the following officers were elected for the ensuing year:—President, Mr. E. W. Binney; vice-presidents, Messrs. Chattwood, Aitken, Greenwell, and Eskridge; hon. sec., Messrs. J. E. Forbes and Clegg; hon. curators, Mr. E. W. Binney and H. M. Ormerod; treasurer, Mr. H. M. Ormerod. The council were also elected, and thanks were voted to the several officers for their past services. A conversation arose as to desirableness of more frequent excursions, and the result was the adoption of the following resolution:—"That three excursions at least be made during the ensuing year, and that the President, honorary secretaries, and Messrs. Aitken and Chattwood (with power to add to their number) be a committee to make the necessary arrangements." It was understood that an excursion would be made within the next month, of which notice would be given as soon as the preliminaries could be arranged.

**THE TAVISTOCK IRONWORKS AND STEEL ORDNANCE COMPANY (Limited).**—An order appointing a provisional liquidator of this company was made during the vacation, and he had, as he was authorised to do, paid off a judgment creditor who had not possession of part of the company's property. A petition to wind-up was on the paper of the Master of the Rolls on Saturday last, and it having been stated that the company was in a state of insolvency, and the petition not capable of being resisted, an order, as asked, was made.

**NORTHFIELD IRON AND STEEL WORKS COMPANY (Limited).**—This company is being wound-up upon a petition presented by the Sheepbridge Coal and Iron Works Company (Limited). Mr. Fowler, the manager of the petitioners, was appointed to carry on the Northfield Company's Works until a sale could be effected. This had been attempted, but without success. In consequence of the heavy rent of 1400l. which had to be paid, and the landlord, having been applied to, had refused to reduce that amount. As Mr. Fowler's interim appointment expired last week application was made to renew it. It was stated that he took possession at a time of great depression, and it was believed, by a continuance of the works for a short time longer, they would be sold to greater advantage. The Chief Clerk directed an affidavit to be made by Mr. Fowler, and the matter stood adjourned for its production.

**THE LAWTON IRONWORKS COMPANY (Limited).**—This company is in course of liquidation, the petition to wind-up having been presented on September 18, and the official liquidator appointed on October 16. Application has been made to Mr. Peake, Vice-Chancellor Stuart's Chief Clerk, by the official liquidator, for permission to sell all the finished iron, loose, and other stock belonging to the company, valued at about 3000l. An affidavit by the liquidator stated that iron was deteriorating in value, and was likely to do so; and that if the property was not now sold it would fall to realise so good a price. The Chief Clerk made the order for sale by public auction at once.

**LEESWOOD IRON COMPANY (Limited).**—A petition for winding-up this company by the Court of Chancery has been presented to the Master of the Rolls by Messrs. John Chalk Barrett, Thomas Whaley, and John Thompson, coal proprietors, of the Nerquis-hall Colliery, near Mold.

**WILTSHIRE IRON COMPANY (Limited).**—A petition for winding-up this company by the Court of Chancery has been presented to the Lord-Chancellor by Mr. John Player, of the Norton Ironworks, near Stockton-on-Tees.

**THE NANT COAL COMPANY (Limited).**—This company was formed to work mines in Mold, Flintshire. It had become indebted to its bankers 8000l., and owed 3000l. to other creditors, which it was unable to pay. Under these circumstances a petition to wind-up was presented, and Lord Romilly on Saturday made an order, and authorised the appointment of the provisional liquidators as official liquidators.

**THE GELYNOL LIANTWIT COLLIERY.**—This company being in course of liquidation, under an order of the Court of Chancery, the whole of the property was submitted for sale, by public auction, by Messrs. Chinnock, Galsworthy, and Chinnock, on Wednesday. The set comprised several valuable seams of coal, including the celebrated Maesmawr vein, and the workings for some time past were equal to an output of 150 tons of coal per day. This amount is capable of a considerable increase, and a proportionate profit on the working. The company was wound-up in consequence of the recent monetary crisis. No bid was made for it, and the property remains in the hands of the liquidators.

**UNITED MERTHYR COLLIERIES COMPANY (Limited).**—It appears that a bill in Chancery has been filed against the directors, promoters, and liquidators of this company, praying that the Court of Chancery would restrain the liquidators from taking any proceedings to enforce payment of the late call.

**THE CROOKHAVEN MINING COMPANY (Limited).**—This case was heard before the Master of the Rolls last Saturday, and the question raised was, whether, all the debts being paid, a shareholder who had paid up his calls in full, whilst others had not, was entitled to have calls made upon the shares not fully paid, in order to recomp him his advances. The Anglessey Colliery Company's case was relied upon, and Lord Romilly made an order in the terms prayed.

**NOVA SCOTIA LAND AND GOLD-CRUSHING AND AMALGAMATING COMPANY (Limited).**—A petition for winding-up this company by the Court of Chancery has been presented to the Master of the Rolls by Messrs. William Armand and Benjamin Wier, of Halifax, Nova Scotia.

**HOLLOWAY'S OINTMENT AND PILLS—IMPORTANT TO EVERYBODY.**—For more than 20 years these remedies have ranked before all curative remedies, for the all-sufficient reason that they never can be wrongly used in either external or internal diseases. Holloway's ointment should be well rubbed on the throat and chest in sore throat, enlarged glands, chronic cough, and wheezing, in common catarrh and influenza, the ointment well rubbed upon the walls of the chest, aided by a few doses of the pills, soon effects a cure. The same treatment, judiciously followed up, removes diphtheria, asthma, bronchitis, pleurisy, and prevents the deep inflammation resulting in abscess or ulceration, so apt to ensue where throat or chest complaints are neglected.

## THE MINERAL RESOURCES OF BOHEMIA.

The enormous field for enterprise which Bohemia offers to the miner has been upon several previous occasions pointed out in the *Mining Journal*, and the immense wealth in minerals of this country is proverbial on the Continent—Bohemia and its ore-mountains (Erzgebirge) may well be called the Cornwall of Germany, yet hitherto Bohemian mines have failed to take a prominent place upon the English market; partly because the mines proposed to be worked have not been well selected, but principally from the great want of judgment and local knowledge which has been displayed in connection with the management of the undertakings. With ordinary care in selection, and skill in development, there is no reason why the mines of Bohemia, which are rich, should not contribute largely to the material wealth of the Austrian empire, and more than compensate for any losses she may have sustained by the war with Prussia.

The best lays of coal and minerals have long been known to exist near Falkenau, Komotau, and Eger, but lack of railway communication has, up to the close of last year, precluded these mines from being brought in communication with the outer world. This want, however, is now met by several lines of railway being partly opened—partly in course of construction. The new line from Hof (Bavaria) to Ash, Eger, and Franzensbad, connects Bohemia, and principally Eger and its surrounding mines, with North and South Germany. A company is at present in course of formation—the Bohemian Coal and Mineral Company—which will, no doubt, cause attention to be directed anew to that country. The object of the company is to purchase for 70,000l. the Hochberger estate, about six miles from Eger, with a manufacturing plant and profitable business attached thereto. The Hochberger estate is held in perpetuity from the Government on the payment of 9% per annum, and there are no other royalties or rents of any kind. There are 30 mines, compactly and favourably situated. These have of late not been worked. The aggregate value of the mineral contained is estimated at upwards of 1,000,000l. sterling. Labour is abundant and cheap, and the working is easy, inasmuch as the coal is quarried from the mountains, and there is no risk and expense of sinking shafts. It is stated that valuations, independent of the interest of the owner, have been made by eminent engineers, whose position as men of first-class standing has been certified by the firm of Messrs. F. Huth and Co., and Messrs. Ordish and Le Feuvre. The valuation of this property is fixed at 79,000l.

According to German papers, a great want of coals in all parts of Germany, but especially in Bavaria, Wurtemberg, Baden, &c., has for some time been felt. This demand is but scantily supplied by the Saxon mines near Zwickau, who have more orders on hand than they are able to execute. Wood, which is used in many parts of Germany, is daily rising in price, and almost out of the reach of the middle and poorer classes. The company subjoins extracts from two of the most respectable German papers on that subject. A better supply is now looked forward to, owing to the opening of the Eger-Hof Railway. The company comes forward with the recommendations that no promotion money is to be paid, and that half of the purchase money is to be taken in paid-up shares.

**GOLD IN NEW BRUNSWICK.**—In addition to the discovery some months ago below the Grand Falls on the River St. John, gold has also been found on the Tobique river, which seems to promise good results.

**AUSTRALIAN GOLD AT THE PARIS EXHIBITION.**—It is intended to forward to the Paris Exhibition a pyramid, representing the space which would be occupied by all the gold produced in Victoria during the last 15 years. The height of the pyramid will be 20 ft. 10 in., and at the base it will measure 10 ft. square. Its cubic measure will be 1994 ft., and it will represent a weight of 1071 tons 3 qrs. 12 lbs., of the value of 149,000,000l.

**GOLD IN NEW ZEALAND.**—A letter dated Christchurch, Sept. 6 says:—"The accounts from the gold fields are most encouraging. Thousands are expected from Melbourne this spring, and already two ships have arrived with 500 passengers. The land sales in the province of Canterbury up to Aug. were:—Town lands, 16,600 acres; rural, 650,000; the rural land sales during the past year having been 74,000, at 2s. per acre. The land held under lease by squatters is 5,756,448 acres, yielding a yearly rent of about 30,000l., which will be increased about 50 per cent. at the end of seven years. The exports for the year ending June 30 were:—Gold (Hokitika), 1,444,401; wool, 464,318; other produce, &c., 12,827l.; gold (Greymouth) six months, 277,455l.; imports, 1,176,486l.; excess of exports over imports, 1,022,515l. The wool exports are increasing about 20 per cent. annually, and the gold export is also much on the increase, being considerably over 1,000,000l. for the past six months."—S. W. SILVER and Co.

## Game Licenses.

**THE COMMISSIONERS OF INLAND REVENUE** hereby give notice that LISTS, containing the NAMES of ALL PERSONS who have taken out LICENSES to KILL and DEAL in GAME in the current year, to 30th September last, inclusive, have been printed for each Excise Collection.

A COPY thereof may be obtained GRATIS by any person on application at this Office, or at the Offices of the Collector or Supervisor of Inland Revenue, Distributor or Sub-Distributor of Stamps in the country, by whom Licenses are issued.

The Commissioners further give notice that instructions have been issued to their officers to take the necessary steps to prefer informations for penalties against all persons found in pursuit of or dealing in Game without license. WM. CORBETT, Secretary. Inland Revenue, Somerset House, London, 3d November, 1866.

## Memorial to the late Mr. Nicholas Wood.

**MEMORIAL TO THE LATE MR. NICHOLAS WOOD.**—A PUBLIC MEETING will be held in the NEVILLE HALL, NEW-CASTLE-ON-TYNE, on SATURDAY, November 10, 1866, at Twelve o'clock at noon, for the purpose of receiving and considering a special report of the committee. THOMAS E. FORSTER, Chairman.

## Royal School of Mines, Jermyn Street.

**MINERALOGY AND MINING—ROYAL SCHOOL OF MINES, JERMYN STREET.**—MR. WASHINGTON SMYTH, M.A., F.R.S., will COMMENCE A COURSE OF FORTY LECTURES ON MINERALOGY at One o'clock, and SIXTY LECTURES ON MINING at half-past Three o'clock, on MONDAY next, the 12th November, to be continued on each succeeding Tuesday, Thursday, Friday, and Monday, at the same hour. Fee for each course, 4s. TRENHAM REEKS, Registrar.

**MESSRS. J. H. GREENER AND CO.** have always on their List important BUSINESSES FOR SALE, and others for PART DISPOSAL, in Shares or Partnerships, as well as WORKS FOR LEASE, and MONEY TO INVEST.

Parties desirous of disposing of such works as are mentioned below are invited to send particulars; and those wishing to invest will find this an advantageous medium for ascertaining the commercial value of the concerns which Messrs. GREENER and Co. negotiate.

The classes of property to which they chiefly devote their attention are—COAL AND IRON MINES, IRON FOUNDRIES, ENGINEERING WORKS, SHIPBUILDING YARDS, BREWERIES AND DISTILLERIES, and large MANUFACTURING WORKS.

For CAPITALISTS and others, wishing to invest from £500 and upwards, Messrs. J. H. GREENER and Co. keep a Register of all Manufacturing Patents, which they consider likely to be remunerative, and they can advise parties interested in such.

Reports and Valuations made in connection with the business. Particulars on application. OFFICES.—5, JOHN STREET, ADELPHI, LONDON, W.C.

**TO INVENTORS.—THE LONDON PATENT AGENCY,** No. 21, COCKSPUR STREET, CHANCERY CROSS, LONDON, PROCURES PATENTS FOR INVENTIONS at fixed and moderate charges. A HANDBOOK GRATIS. R. MARSDEN LATHAM, Manager.

**BRITISH, COLONIAL, AND FOREIGN PATENTS,** REGISTRATION OF DESIGNS, COPYRIGHTS, TECHNICAL TRANSLATIONS, DRAWINGS, &c. MR. MICHAEL HENRY, Memb. Soc. Arts, Assoc. Soc. Engineers, Author of the "Inventors' Almanac," and the "Defence of the Present Patent Law," PATENT REGISTRATION AND COPYRIGHT AGENT AND ADVISER.

Inventors advised in relation to Patents and Inventions and Industrial Matters. Printed information sent free by post. Specifications drawn and revised. Searches conducted. Abstracts, Cases, and Opinions drawn. Translations of Catalogues, Trade Notices, and Circulars for the approaching Paris Exhibition. Mr. HENRY has had special experience in technical French, and in French Manufacturing and Commercial Matters. Offices, 68, Fleet-street, E.C., London, corner of and entrance in Whitefriars-street.

**CHONTALES GOLD MINING COMPANY.**—A CIRCULAR containing particulars relative to this company's mines, and explaining the position of the different classes of shares, can be obtained on application at the office of Mr. J. H. MURCHISON, No. 8, Austin Friars, London.

## THE CONSOLIDATED COPPER MINES OF COBRE.

The Court of Directors of the Company of Proprietors of the Royal Copper Mines of Cobre, in pursuance of the resolutions passed at a Special General Meeting of the company, held on the 31st day of July, 1866, and confirmed at a Special General Meeting of the company, held on the 21st August, 1866, hereby REQUIRE the HOLDERS of the now existing CERTIFICATES of SHARES of the capital of the company to DELIVER the SAME, with their NAMES, RESIDENCES, and DESCRIPTIONS written thereon, at the office of the company, Gresham House, Old Broad-street, in the City of London, on or before the 3d day of December next, to the intent that the name, residence, and description of every person then holding any of those certificates, and the number of shares comprised therein, may be duly entered in a book to be kept for that purpose, and to be called "the Share Register Book;" and to the intent and so that every person so registered, his executors, administrators, and assigns, while holding any share or shares in the company, shall be bound to perform and observe in respect thereof all and singular the clauses, stipulations, and agreements contained in the company's Deed of Settlement and from time to time in force, and all other the laws, rules, and regulations of the company from time to time in force; and to the intent that such existing certificates shall and may then be cancelled; and the Court of Directors will thereupon deliver to every person so registered one or more certificate or certificates of his share or shares, specifying the number or numbers thereof, and the name, residence, and description of the proprietor.

And the Court of Directors further give notice that, if the holder of any of the now existing certificates shall not, on or before the said 3d day of December next, deliver the same with his name, residence, and description written thereon, at the office of the company for cancellation, the share or shares in respect of which default is so made will be declared absolutely forfeited for the benefit of the company. H. R. GRENFELL, } Directors of the Company. WALTER SHAIFF, }

Dated the 31st day of October, 1866.

**PANT-Y-GLIEN SLATE AND SLAB COMPANY (LIMITED).**—Notice is hereby given, that ALL CREDITORS of the ABOVE COMPANY are hereby REQUIRED to SEND IN THEIR CLAIMS to the Liquidators, Allhallows Chambers, Lombard-street, London, on or before the 30th day of November inst. GEO. RAWLINS, } Liquidators. WM. CHICHESTER, }

London, November 8, 1866.

**THE CEFN CWM BRWYNO MINES COMPANY (LIMITED).**—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders in the above company will be HELD at No. 6, Queen-street-place, London, on FRIDAY, the 14th day of December, 1866, at Twelve o'clock at noon precisely, when a resolution will be proposed to dissolve the company, and to wind it up voluntarily, under the provisions of the Companies Act, 1862. JOHN TAYLOR AND SONS, Managers. Dated November 9, 1866.

**GENERAL MINING COMPANY FOR IRELAND (LIMITED).**—Notice is hereby given, that the HALF-YEARLY GENERAL MEETING of the shareholders of this company will be HELD at their office, on MONDAY, the 3d day of December next, at the hour of Twelve o'clock noon, to receive the accounts for the past half-year, and to transact the general business of the company. By order, H. C. FOWLER, Sec. Office, 29, Westmoreland-street, Dublin, November 9, 1866.

**THE GONNESA MINING COMPANY (LIMITED).**—Notice is hereby given that the THIRD ORDINARY GENERAL MEETING of shareholders will be HELD at this office, on the 4th day of November instant, at Two o'clock in the afternoon, to receive the report of the directors, and a statement of accounts for the year ending the 30th June last, and for general business, as authorised by the Articles of Association.

In conformity with such Articles, the following directors will retire from office at this meeting, viz.:—James Henry Enthoven, Esq., and Edmund Alfred Pontifex, Esq., but both are eligible for re-election, and offer themselves accordingly. The auditors, Frederick Enthoven, Esq., and John Phillips, Esq., will also retire from office, but are eligible and offer themselves for re-election.

By order of the board, W. G. WILLIAMS, Secretary. 6, Queen-street-place, London, E.C., 1st November, 1866.

**PORT PHILLIP AND COLONIAL GOLD MINING COMPANY (Incorporated by Royal Charter).**—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, London, on TUESDAY, the 20th inst., at One o'clock in the afternoon precisely, for the purpose of electing two directors in the place of Sir Charles Henry John Rich, Bart., and Capt. James Vetch, R.E., who have resigned, and also for the purpose of electing a trustee in the room of the said Sir Charles Henry John Rich, Bart.

In accordance with the Deed of Settlement, the above elections will be decided by ballot. Proxies must be left with or sent to the company's office at least three days previous to the meeting. By order, C. H. FIELDER, Secretary. Offices, 35, Bucklersbury, London, E.C., November 7, 1866.

**PONTGAUD SILVER-LEAD MINING AND SMELTING COMPANY.**—THE ORDINARY ANNUAL GENERAL MEETING of the shareholders of the above company will TAKE PLACE in Paris, at the offices of the company, No. 24, Rue Richer, on FRIDAY, the 30th day of November instant, at Twelve o'clock precisely.

The qualification to take part in this meeting is the holding of twenty shares, which must be deposited at the offices of the company in Paris, or at the agency in London, ten days before the meeting takes place. Shareholders may be represented by proxies at the meeting; but no one can be the bearer of a proxy unless he himself is the owner of twenty shares. Proxies must be upon French stamped paper, and according to the form, which can be obtained at either of the offices of the company. JOHN TAYLOR AND SONS. London Agency, No. 5, Queen-street-place, November 7, 1866.

**WILLIAMS'S PERRAN FOUNDRY COMPANY,** PERRANARWORTHAL, CORNWALL. MANUFACTURERS OF STEAM PUMPING AND EVERY OTHER KIND OF ENGINES, together with BOILERS, PUMP CASTINGS, and MINING TOOLS of every description, of the very best quality. Estimates given for the supply of any amount of machinery. London Agent.—MR. EDWARD COOKE 2, Crown Chambers, Threadneedle-street.

**A BEGG'S ELECTRIC MACHINES,** FOR BLASTING UNDERGROUND ..... £5 0 0 BORING MACHINES (Richards's patent) ..... £12 to 20 0 0 ONE HUNDRED ELECTRIC FUSES ..... 0 3 0 TWENTY-FOUR YARDS OF COVERED WIRE ..... 0 1 0 Apply to Mr. S. RICHARDS, Crosby House, No. 95, Bishopsgate-street Within, London, E.C.

**NITRO-GLYCERINE, OR NOBEL'S PATENT BLASTING OIL.**—THE EXPLOSIVE FORCE of this BLASTING OIL is TEN TIMES that of GUNPOWDER, and the ECONOMY and SAVING in TIME, LABOUR, and COST in removing granite and hard rock, in sinking shafts, driving tunnels, and opening forward in close ends is immense.

It will not explode from a spark or fire, but from concussion alone, and is consequently much less dangerous than gunpowder or gun-cotton. Being heavier than water it sinks to the bottom of a wet hole, no other tampering than water being required.

One charge of this blasting oil, which is now being used with wonderful effect in all the largest slate quarries in North Wales, will displace as much slate rock as four or five charges of gunpowder; and its great force, acting on a large quantity of good slate rock, shakes and displaces it at the natural joints, or cracks, without damaging the slabs nearly so much as the more numerous blasts from any other blasting material would do.

This invaluable quarrying agent may now be obtained from Messrs. WEBB and Co., Carnarvon, sole consignees from the patentee.

**HUNT'S PATENT ORE SEPARATOR AND GOLD WASHING MACHINE.**—Information respecting the above machines can be obtained on application to Mr. WILLIAM WARD, 95, Bishopsgate-street Within, or Mr. JOHN HUNT, at his works, Porthleven, Helston, Cornwall.

N.B.—Any person making or using the above machines, without previously obtaining a license, will be proceeded against according to law.

Now ready, in tuck, gilt edges, price 3s. 6d., by post 3s. 8d. (44 stamps).

**GUTH'S LITERARY AND SCIENTIFIC REGISTER,** ALMANAC, AND DIARY FOR 1867.

"Among readers and writers there are few, whatever be the extent of their learning or the tenacity of their memory, who might not find it for their advantage to have such a prompter always at hand."—*Daily Telegraph.* London: W. Stevens, 421, Strand.

**RAILWAYS AND MINES.**—Capitalists who seek safe and profitable investments, free from risk, should act only upon the soundest information. The market prices for the day are for the most part governed by the immediate supply and demand, and the operations of speculators, without reference to the bona fide merits of the property. Railways depend upon the traffic, expenditure, and capital accounts, the probabilities of alliance or competition with neighbouring companies, the creation of new shares, the state of the Money Market as affecting the renewal of debentures, and other considerations founded on data to which those only can have access who give special attention to the subject. Mines afford a wider range of profit than any other public securities. The best are free from debt, have large reserves, and pay dividends bi-monthly varying from £10 to £15 per cent. per annum. Instances frequently occur of young mines rising in value 400 or 500 per cent. But this class of security, more than any other, should be purchased only upon the most reliable information. The undersigned devote special attention to Railways and Mines, afford every information to capitalists, and effect purchases and sales upon the best possible terms. Thirty years' experience in mining pursuits justifies us in offering our advice to the uninitiated in selecting mines for investment. MESSRS. TREDINNICK AND CO. ST. MICHAEL'S HOUSE, CORNHILL, LONDON.

**THE PRACTICAL MECHANIC'S JOURNAL FOR NOVEMBER,** price 1s., with large engraving of "Improved Overhead Traveller," and fifty-one wood cuts. Original Articles on Some Points of Practice in Iron Founding; Planing Machines; on a New Air-pump; Feed Arrangement for Internally Fired Boilers; the Construction of Large Granaries; Prentice and Ingalls's Furnace for Annealing Metallic Plates; River Steamers for High Speeds; Theory of the Driving Belt; on the Flow through Apertures of Solid Bodies. Recent Patents: Steering Apparatus—James Skinner; Smoke Prevention—Wm. Naylor; Window Blinds and Screens—John Ballard. Reviews of Books, Mechanical Library, Correspondence, Scientific Societies, Marine Memoranda, Monthly Notes, Inventions, &c. London: J. T. PATENT, Longmans, Paternoster-row. Editors' Offices (Offices for Patents), 47, Lincoln's Inn-fields.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**IN RE WEST WHEEL FRANCES MINE.**  
**TO BE SOLD,** pursuant to an Order made in a Cause Pike and Another v. Ewen and Others, dated the 27th day of September last, at the Registrar's Office, Truro, on Wednesday, the 28th day of November inst., at One o'clock in the afternoon.  
6 (512th) PARTS or SHARES of the defendant John Ewen; and  
1 (512th) PART or SHARE of the defendant William Michell,  
Of and in the said MINE.

HODGE, HOCKIN, AND MARRACK, Truro  
(Agents for S. T. G. Downing, Plaintiff's Solicitor, Redruth).  
Dated Registrar's Office, Truro, November 8th, 1866.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**IN RE CAMBORNE YEAN MINE.**  
**TO BE SOLD,** pursuant to an Order made in a Cause Pike and Another v. Wood and Another, dated the 27th day of September last, at the Registrar's Office, Truro, on Wednesday, the 28th day of November inst., at One o'clock in the afternoon.  
5 (460th) PARTS or SHARES of the defendants,  
Of and in the said MINE.

HODGE, HOCKIN, AND MARRACK, Truro  
(Agents for S. T. G. Downing, Plaintiff's Solicitor, Redruth).  
Dated Registrar's Office, Truro, November 8th, 1866.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**In the Consolidated Causes of—**  
**TREGASKILL v. RABBY.**  
**READY v. SAME.**  
**BRAY v. SAME.**  
**SANDERS AND ANOTHER v. SAME.**  
**SANDERS v. SAME.**

**TO BE SOLD,** pursuant to the several Orders made in the above-mentioned Causes, and dated respectively the 14th day of August last, BY PUBLIC AUCTION, at SOUTH WHEEL LEISURE MINE, in the parish of Perranzabuloe, within the said Stannaries, on Thursday, the 22nd day of November inst., at Eleven o'clock in the forenoon, in lots, the undermentioned MINING MACHINERY, MATERIALS, and OTHER EFFECTS, the whole being at surface, viz.:

ONE 24 in. PUMPING ENGINE, with BOILER, complete.  
Capstan and shears, capstan and other rope, balance bob, shaft tackle, pumps, windbore, doorpiece, working barrel, stuffing box and gland, matching piece, plunger and bucket lifts, plunger pole, bucket and other rods, horse wheel, pulleys and stands, chain, capstan arm casting, crab wheel, launders, chain, ladder, tram wagon wheels, pair of levels, smiths' and miners' tools, timber, carpenter's bench, scale and beams, saws, blocks, bucking mulls, pins, griddles, candles, powder, rope, screw winch, and a variety of other materials in general use in mines.

For further particulars apply to the person in charge thereof.  
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.  
JOSEPH ROBERTS, Solicitor, Truro.  
Dated Registrar's Office, Truro, November 24th, 1866.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the NORTH CHIVERTON MINING COMPANY.**—By an order made by his Honour the Vice-Warden of the Stannaries in the above matter, dated the 5th day of November, on the petition of William Watson, of 27, Abchurch-lane, London, in the county of Devon, mine agent, a creditor of the said company, and Edward Cooke, of No. 2, Crown Chambers, Threadneedle-street, in the City of London, broker, a contributory of the said company, it was ordered that the said NORTH CHIVERTON MINING COMPANY should be WOUND-UP by this Court, under the provisions of the Companies Act, 1862.

HODGE, HOCKIN, AND MARRACK, Truro.  
Dated Truro, 8th November, 1866.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the TRESKERRY MINING COMPANY.**—Notice is hereby given, that a PETITION for the WINDING-UP of the ABOVE-NAMED COMPANY by the Court was, on the 8th day of November, presented to the Vice-Warden of the Stannaries, by Harry Tully, a contributory of the said company, and that the said petition is directed to be heard before the Vice-Warden, at the Prince's Hall, in the borough of Truro, in the county of Cornwall, on Monday, the 19th day of November inst., at Eleven o'clock in the forenoon.

Any contributory or creditor of the company may appear at the hearing and oppose the same, provided he has given at least two clear days' notice to the petitioner, his solicitors, or their agents, of his intention to do so, such notice to be forthwith forwarded to P. P. Smith, Esq., secretary of the Vice-Warden, Truro.

Every such contributory or creditor is entitled to a copy of the petition and affidavit verifying the same, from the petitioner, his solicitors, or their agents, within 24 hours after requiring the same, on payment of the regulated charge per folio.

Affidavits intended to be used at the hearing, in opposition to the petition, must be filed at the Registrar's Office, Truro, on or before the 15th day of Nov. inst., and notice thereof must, at the same time, be given to the petitioner, his solicitors, or their agents.

HODGE, HOCKIN, AND MARRACK, Truro, Cornwall.  
GREGORY, ROWCLIFFE, AND ROWCLIFFE, 1, Bedford-row, London  
(Agents of the said Solicitors).  
Dated Truro, November 8th, 1866.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEEL WILLIAM MINING COMPANY.**—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN and PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Wednesday, the 21st day of November inst., at Eleven o'clock in the forenoon, or in default thereof they will be excluded from the benefit of any distribution made before such proof.

And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents; or, unless such attendance be required by the Registrar's summons, they are to send affidavits of their several debts or claims to the Registrar of the Court, at Truro, such affidavits to be sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL,  
Registrar of the above-named Court, Truro, Cornwall.  
Dated Truro, November 7th, 1866.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the SOUTH ALFRED CONSOLS MINING COMPANY.**—ALL CREDITORS or CLAIMANTS of the ABOVE-NAMED COMPANY who have not received notice from the Registrar of the said Court that their claims have been already admitted, are hereby REQUIRED to COME IN and PROVE THEIR SEVERAL DEBTS or CLAIMS at the Registrar's Office, Truro, on Tuesday, the 20th day of November inst., at Eleven o'clock in the forenoon, or in default thereof they will be excluded from the benefit of any distribution made before such proof.

And for the purpose of such proof they are either to attend in person, or by their solicitors or competent agents; or, unless such attendance be required by the Registrar's summons, they are to send affidavits of their several debts or claims to the Registrar of the Court at Truro, such affidavits to be sworn either before some Commissioner of the said Court, or before any Court, Judge, Justice, or any Commissioner of one of the Superior Courts lawfully authorised to take and receive affidavits and affirmations.

WM. MICHELL,  
Registrar of the above-named Court, Truro, Cornwall.  
Dated Truro, November 7th, 1866.

**In the Court of the Vice-Warden of the Stannaries.  
Stannaries of Cornwall.**

**IN THE MATTER OF THE COMPANIES ACT, 1862, and of the WHEEL HARTLEY MINING COMPANY.**—TO BE SOLD, under the direction of the Registrar of the said Court, BY PUBLIC AUCTION, on Monday, the 19th day of November inst., at Eleven o'clock in the forenoon, at WHEEL HARTLEY MINE, in the parish of Gwinear, within the said Stannaries, either together or in lots, the MINE SETT or GRANT of the said company, and the undermentioned MINING MACHINERY and MATERIALS, viz.:

ONE STEAM PUMP ENGINE; BOILER, with pipes; balance bob, shears and sheaves, capstan and stays, rope, horse wheel and chain, pumps, windbore, doorpieces, plunger pole and stuffing box, pumps, matchings, wood rods, working barrels, rod plates, one pair caps and side plates, ladders, 12 pump iron rods, shaft rod sheaves, one long screw, smiths' and miners' tools, wood house and roofs, timber, hatches, launders, wood fences, copper ore dressing materials, one parcel of copper ore, and one parcel of blende; account house and office furniture, and a variety of other articles and effects in general use in mines.

The materials may be inspected at any time prior to the sale, on application to Mr. WILLIAM IBBOTT, in charge thereof.  
HODGE, HOCKIN, AND MARRACK, Solicitors, Truro.  
Dated Registrar's Office, Truro, Nov. 8, 1866.

**TENDERS FOR THE PURCHASE OF A MINE SETT IN CORNWALL.**—The LIQUIDATOR of the SOUTH LOVELL MINING COMPANY are OPEN to RECEIVE TENDERS for the PURCHASE of the LEASE of this PROPERTY, having an unexpired term of 19 years, together with the PLANT, ORES, MACHINERY, and MATERIALS at surface and underground.

Tenders to be sent in on or before Tuesday, the 13th November, endorsed "Tenders for South Lovell Mine," addressed to the Liquidators, care of Messrs. Stubbard and Beck, Solicitors, 2, East India Avenue, Leadenhall-street, E.C.

**FOREST OF DEAN—SODLEY IRONWORKS.**

**MR. JAMES KARN WILL SELL, BY AUCTION,** at the Spread Eagle Hotel, Gloucester, on Thursday, the 13th day of November, 1866, at Four o'clock in the afternoon, all those BLAST FURNACES, situated at Soudley, in the Forest of Dean and parish of Newnham, in the county of Gloucester, called the SODLEY IRONWORKS, with the MACHINERY, YARDS, and LAND thereunto belonging, and containing together about TWELVE ACRES (more or less).

The above-mentioned furnaces are most advantageously situated about a mile and a quarter from the shipping port of Bulo, on the river Severn, and close to the Dean Forest branch of the South Wales Railway. Abundant supplies of ore, limestone, clinker, and coal can be obtained in the said Forest, and coke, by means of railway, at a moderate cost for freight from Wales.

The water never fails in the driest seasons. The furnaces have been for several years past, and are now, in full and active operation, and will be sold as a going concern.

They have during the last three years been carried on by Messrs. Gould Brothers, and as, in consequence of the death of one of the partners, a change in the firm necessarily takes place, they are now in the market.

Part of the purchase-money may, if required, remain on mortgage, and one of the surviving partners will be willing to continue part owner, and to join any respectable persons in the purchase of the property.

The purchaser will have the opportunity of buying a moiety of that portion of the Findall Iron Mine Work near to the said furnaces, now the property of Messrs. Gould and Cooper.

For view of the property, and further particulars, apply to Mr. ALFRED GOULD, or Mr. TOM GOULD, both of Newnham, in the county of Gloucester.

**BY MESSRS. NEWBOLD AND OLIVER.  
DOVE HOLES, NEAR BUXTON.  
TO RAILWAY CONTRACTORS, COLLIERY PROPRIETORS,  
ENGINEERS, AND OTHERS.**

**MESSRS. NEWBOLD AND OLIVER** beg respectfully to give notice that they are honoured by the Directors of the Midland Railway Company with instructions to SELL, BY AUCTION, at Dove Holes, near Buxton, on Wednesday and Thursday, the 21st and 22nd of November, 1866, the WHOLE of the PLANT used during the construction of the Dove Holes Tunnel, on the Midland Extension to New Mills and Manchester, consisting of EIGHT PUMPING and WINDING ENGINES, viz.:

Three horizontal engines, 12 in. cylinders, and 2 ft. stroke; one ditto, 18 in. cylinder, 3 ft. stroke; ditto, 16 in. cylinders, 2 1/2 ft. stroke; ditto, 9 in. cylinder, 18 in. stroke; ditto, 20 in. cylinder, 4 ft. stroke. WINDING and PUMPING ENGINES, with moveable gear; boilers to each, pumps, and all fittings complete. About 100 tons of flat-bottomed rails, 5 tee bobs complete, of various sizes; set of pump rods; 16 pipes, 13 in. diameter, 9 ft. long, &c.; ditto, 11 in. pipes, 19 in. diameter, 9 ft. long, &c.; ditto, 8 in. 13 in. diameter, 9 ft. long; working barrel, clack, windrope, &c., complete; wrought iron cages for shaft, with covers, fans, bolts, and nuts; plates for centres, scrap and old metal, wagon wheels and pedestals, 2 in. metal pipes, 3 in. steam ditto, trolleys, wagon frames, tunnel wagons, water ditto, wood cisterns, tip wagons, square, round, and flat iron, points and crossings, skip irons, chains, iron plates, jumpers and stemmers, sill irons, wagon drawbars, axes, timber dogs, hanging rods, hanging irons, clips, smiths' tools, rail chairs, "Joe Smith," sinking head, wheels, pulleys, drills, new iron and steel, drills, wire ropes, capstan ropes, turnbuckles for rods, and various quantities of capital metal, timber, balks and half balks, planks, battens, larch and other props, larch tunnel bars, conducting rods, sweeps, sleepers, timber guards, colliery timber, wood and stone sheds and buildings, offices, cabins, and office fixtures, &c., &c.

Sale to commence each day at 11 o'clock, for half-past to the minute.  
Dove Holes Station, on the London and North-Western Railway, is within a few minutes' walk of the place of sale. The 6-40 and 10-30 trains from Manchester stop at Dove Holes; and the 8-50 from Derby arrives at Buxton in time for the 11 o'clock train to the same station.

Catalogues may be had prior to the day of sale at the place of sale; at the Reporter office, Derby; or from the auctioneers, Wardwick, Derby.

**BY MESSRS. NEWBOLD AND OLIVER.  
DERBYSHIRE—OAKERTHORPE COAL AND IRONWORKS, near DERBY,  
with the LEASES of MINERALS from HIS GRACE THE DUKE OF  
DEVONSHIRE and RICHARD C. STRELLBY, Esq.**

**MESSRS. NEWBOLD AND OLIVER** are honoured by instructions from the Liquidator of the Oakerthorpe Iron and Coal Company (Limited) to SELL, BY AUCTION, at the Midland Hotel, Derby, on Thursday, 29th November, 1866, at Four o'clock, the above important COLLIERIES and IRONWORKS, with the PLANT, &c.

The Works are situated close to the Wingfield Station on the Midland Railway, fourteen miles north of Derby. Trains from the North stop at this station—8-52 A.M., 11-16 A.M., and 4-16 P.M.; from the South, 6-44 A.M., 7-59 A.M., 11-7 A.M., and 2-2 P.M.

Plans, &c., can be inspected at the office of the works; and any information may be obtained from the Liquidator, JOHN HEDLEY, Derby; or Messrs. WOODHOUSE and JEFFCOCK, Mining Engineers, Derby. Printed particulars may be obtained from the above gentlemen; the Auctioneers, Derby; or Messrs. MILES, GREGORY, and BUCKSKILL, Solicitors, Leicester.

An order to inspect the works may be obtained of the Liquidator, or of Messrs. Woodhouse and Jeffcock.

**VALUABLE FREEHOLD ESTATE, WITH COPPER MINE, MACHINERY,  
AND MATERIALS.**

**MR. BLAKE WILL SELL, BY AUCTION,** at the New Auction Mart, Tokenhouse-yard, City, London, on Tuesday, the 20th November, 1866, at Twelve for One o'clock precisely, subject to conditions to be then produced, all that very VALUABLE FREEHOLD ESTATE, known as the COLCHARTON ESTATE, situate near TAVISTOCK, in the county of DEVON, consisting of a capital FARM of about SIXTY-SEVEN ACRES of well-cultivated land, and excellent long leasehold and farming appointments, now in the occupation of Mr. GILL; also all the very valuable COPPER MINE thereon, partially developed by the GREAT DEVON AND BEDFORD (COLCHARTON) COPPER MINING COMPANY (LIMITED), now in course of voluntary winding-up, with all its MINERAL RIGHTS, and the ENGINE-HOUSE, OFFICES, POWDER-HOUSE, CARPENTERS' and SMITHS' WORKSHOPS, TOOLS, PLANT, MACHINERY, and MATERIALS thereunto belonging; comprising—

1 20 in. diameter cylinder double rotary STEAM-ENGINE, with fly-wheel 11 tons, 18 in. dia., sweep rods and cranks attached, complete.  
1 drawing machine, complete.  
1 shears, 60 feet high, with oak caps and pulleys.  
1 8-arm capstan, with oak axle and 2 balance bobs, with gudgeons, saddles, and brasses, complete.  
130 fms. 10-in. capstan rope, nearly new.  
50 fms. 8-in. pumps.  
1 gin H-piece and 1 gin door-piece.  
1 10-in. door-piece and doors, complete.  
2 9 in. working barrels.  
2 9-in. windbore.  
1 9-in. plunger pump, with stuffing box and glands to match.  
20 fathoms 2-in. iron bucket rods.  
45 fathoms 10-in. main rods, with rod plates, complete.  
50 fathoms ladders.  
180 fathoms air pipes.  
1 crab winch.  
160 fathoms tram road iron & saddles, rods and flange bolts and nuts, pump rings.  
30 fathoms flat rods, with pulleys and 90 fathoms whin chain.  
1 41-in. smith's bellows, anvil, vice, screw tools & stocks, smith's tools.

A quantity of useful new and old iron, miners' tools, 6 miners' chests, 2 kibbles, 3 tram wagons, carpenter's bench and chest, beams, scales, and weights, 1/4 ton blasting-powder, quantity of new and old timber, with various other articles usually found in or near a mine of this extent and description.

The whole will be offered in One Lot.

This property is bounded on the north by the far-famed Devon Great Consols, on the west by the Bedford United, and on the south by the Wheal Crebor, and is adjacent to the Gunnedale, South Bedford, Crelake, and Crowndale Mines, all of which are fully appreciated by the mining community for their enormous productiveness. Several of the richest lodes of the Devon Great Consols and Bedford United Mines are well known to run in and through the entire length of the estate. The present engine-shaft has been sunk 52 fms., and some very fine stones of rich copper ore have been obtained. The general appearance of the lodes, cut in cross-sections, driven at 25, 30, and 40 fathoms, has been reported by competent agents to be such as to induce the belief that in depth a rich mine will result; but, owing to the whole of the shares of the company having been called up, and the proceeds expended, the further development of the mine by the company has necessarily been suspended.

The attention of capitalists in search of a good speculation is invited to the property now offered, upon which a large sum has been expended, and which has the advantage of so much work done, consequently so much time saved towards the accomplishment of the object sought. The mine is kept dry, and has been worked up to the present time. Possession will be given immediately after the sale. The entire property being freehold, and the surface and minerals sold, there will be no royalties payable.

The whole can be inspected by applying to the agent, Capt. WILLIAM SKEWIS, Tavistock; or to Capt. JAMES RICHARDS, on the mine, who are instructed to afford every information respecting the state and prospects of the workings and lodes; and further particulars and handbills can be obtained of J. H. SKYRME, Esq., solicitor, Ross; F. GORDON, Esq., solicitor, 30, Gracechurch-street, City, London; or of the liquidator of the company, Mr. THOMAS BLAKE, public accountant, Bank Office, Ross.

**IN THE FOREST OF DEAN, COUNTY OF GLOUCESTER.**  
**VALUABLE COAL MINING PROPERTY,** extending over an area of 142 acres, together with the MACHINERY and PLANT.

**MESSRS. GADSDEN, ELLIS, AND SCORER WILL SELL, BY AUCTION,** at the Mart, Tokenhouse-yard, in the City of London, on Friday, November 23, at Twelve o'clock, the FARMER'S FOLLY and WINDMILL PIT COLLIERY, situate in the Forest of Dean, in the parish of English Bicknor, two and a half miles from the market town of Coleford, and near to Monmouth, Newland, Stanton, Liddbrook, Redbrook, River Wyre, and the Kerne-bridge, which forms a direct communication into Monmouthshire and Herefordshire. It comprises about 142 acres of unworked coal of the Coleford High Bell Vein, and estimated to contain some millions of tons. The great value of the coal in this district is fully established for all purposes, as well as the certainty of the yield. There is every appliance for developing the mine, and, with capital at command, it could be most profitably worked, either by a private individual or a company. An Act has been obtained for a line of railway between Monmouth and Coleford.

Held under a perpetual grant from the Crown at a nominal royalty. May be viewed. Particulars may be obtained of Messrs. CROSTY and BURN, Solicitors, 25, Bireh-lane, London; of Messrs. GOSNELL and SOS, Auctioneers, &c., Monmouth; at the principal hotels at Gloucester, Hereford, and Birmingham; at the Mine; and of Messrs. GADSDEN, ELLIS, and SCORER, 18, Old Broad-street, London.

**FOR SALE, A SECOND-HAND PORTABLE OR TRACTION STEAM ENGINE,** of 7-horse power; has reversing gear; with or without pit winding drum.—Apply to BARROWS and CARMICHAEL, Portable Engine Works, Banbury, Oxon.

**NORTHAMPTONSHIRE,** within five miles of the town of Northampton. The COGENHOE ESTATE, comprising several FARMS, WATER CORN MILL, SUNDY COTTAGES, forming nearly the whole of the village; PLOTS of BUILDING and ACCOMMODATION LAND, the whole containing together 445 Acres; the MANOR, with extensive rights of Fishing; also the important MINERALS under the Estate, of IRONSTONE, POTTERY CLAY, SILVER and GLASS SAND,—the whole producing a present rental of £1300 per annum.

**MESSRS. FAREBROTHER, CLARK, AND CO.** are instructed to SELL, BY AUCTION, at the George Hotel, Northampton, on Saturday, December the 8th, at One for Two o'clock precisely, in Twenty Lots, the COGENHOE ESTATE, freehold and tithe free, situate about midway between Northampton and Wellingborough, intersected in part by the Peterborough branch of the London and North-Western Railway, and only a quarter of a mile from the Billing station, comprising several FARMS, WATER CORN MILL, the greater portion of the VILLAGE BUILDING and ACCOMMODATION LAND, the whole containing about 445 acres, and producing a rental of £1300 per annum, independent of the undeveloped mineral wealth comprised therein. Also, the MANOR or LORDSHIP of COGENHOE, with valuable rights of fishing. To capitalists this estate offers a wide field of enterprise, and assures a certain prospect of sound and unlimited trade. It commands the best of the finest clay, on a hill with white sand and loam, making first-class red and white bricks, tiles, drainage pipes, and terra cotta, giving a trade which will command the London market, to which there is ready access by railway and canal at remunerative rates: 10 feet of iron ore extends over more than 200 acres. This ore is now in great request in the iron-producing districts, with all of which this estate is in direct communication. By utilising the white clay and sand above the ore, the latter would be got free of expense. There are large deposits of limestone and gravel ballast. There is an excellent plant on the estate, and a line of rails already laid down, so that operations, either in the brick or iron trade, may be commenced at once.

There is a right of way over several level crossings on the Northampton and Peterboro' line of railway to the navigable river Nine. Holes will be sunk to show the minerals, and also intending purchasers will have permission to make such further borings at their own expense.

Manufactured and raw mineral samples of this estate are to be seen at the offices of Messrs. FAREBROTHER, CLARK, and Co., 5, Lancaster-place, Strand; at Messrs. DAWSON, BRYAN, and DAWSON, solicitors, 33, Bedford-square; and at Messrs. MARKHAM, Northampton, where particulars and plans of the property may be had; also at the place of sale, the "Hind," Wellingborough; the "Royal Hotel," Kettering; and the "George," Market Harborough. The lands will be shown on application to Mr. JAMES SHAMAM, Cogehoe.

**TO COLLIERY PROPRIETORS.**

**TO BE SOLD, BY PRIVATE CONTRACT, ONE 20-in. cylinder** condensing BEAM ENGINE, 5 ft. stroke, with fly-wheel, 12 ft. cylinder, jack head and feed pumps; two winding verticals, for flat ropes, with wrought iron shaft to ditto.

ONE direct acting PUMPING ENGINE, 45 in. cylinder, 9 ft. stroke, with metallic piston, and double beat valves and connections.  
TWO wrought iron cylindrical STEAM BOILERS, 29 ft. long, 4 ft. diameter, with pipes and fittings.

ONE ditto ditto, 29 ft. long, 6 ft. diameter.

One powerful capstan, oak pallet, 28 in. diameter, with cast iron sockets, wrought iron staples, glands, and bars, complete.

One ditto ditto, with oak pallet, 15 in. diameter.

Two cast iron pit head pulleys, 8 ft. diameter, with wrought iron arms, for flat ropes.

Two cast iron spur wheels, 6 ft. diameter, new.

One wrought iron shaft, 10 ft. long, 8 1/2 in. diameter, new.

One cast iron saw bench, with planed top, 5 ft. by 2 ft. 5 in. with driving pulleys, and three circular saws.

One weighing machine, up to 7 tons.

One pair of smith's bellows, 40 in. diameter.

One pair of smith's bellows, 36 in. diameter.

One pair of smith's bellows, 34 in. diameter.

To view and treat for the same, apply to the Welsh Coal and Mineral Oil Company (Limited), Oak Pits Colliery, Mold, Flintshire.

**TO IRONMASTERS, COAL MASTERS, AND CAPITALISTS.**

**TO BE SOLD, BY PRIVATE TREATY,** either in one or two lots, TWO FARM-HOUSES, with gardens, &c., and ONE HUNDRED AND FORTY-THREE ACRES of FREEHOLD LAND, with exceedingly VALUABLE MINERALS and MINERAL RIGHTS thereunder, situate in the county of Stafford. The minerals, as proved by borings and actual workings, consist of the New Mine Coal, Fire-Clay Coal, Getting Rock and Poor Robin's Ironstone, Top Part of Bottom Coal, Bottom Coal, Gubbin and Balls Ironstone, Blue Flints Ironstone, Silver Threads and Diamonds Ironstone, the Four Feet Coal, the Heathen Coal, the Brown Ironstone, the New Mine Ironstone, Yard Coal, Five Feet Coal, &c. The property also comprises COLLIERY PLANT and MACHINERY. A canal passes through the centre of it.

Part of the purchase money may remain upon mortgage, if desired. Principals or their solicitors only treated with.

Apply to Messrs. KIMBER and ELLIS, solicitors, 199, Gresham House, London.

**SPELTER WORKS, ON SALE,** in consequence of the death of the proprietor, the TINDALE SPELTER WORKS. These valuable WORKS, and the GOODWILL of the extensive and profitable business carried on in them, are OFFERED FOR SALE by the executors of the late proprietor, by whom they were erected twenty years ago, and carried on with great success till his death. They are in Cumberland, near the Milton Station of the Newcastle and Carlisle Railway; and are in full operation; and, owing to their situation in an ore-producing district, and to most important privileges enjoyed under a lease from the ground landlord, they offer to capitalists a safe and highly advantageous investment. From the nature of the workings, the management is attended with little or no difficulty; the spelter made at the works is in high repute, the connection is safe and respectable, and the premises are sufficiently large to admit of a great extension of the works to meet the increasing demand for the article.

For price and further particulars, apply to E. HUGHES, Esq., Solicitor, Carlisle; or to ASTROP CARISS, Accountant, Bank Chambers, 3, Cook-street, Liverpool.

**BOWLING IRON COMPANY,  
BRADFORD, YORKSHIRE.**

**BEST CRUCIBLE CAST-STEEL TYRES, AXLES, CRANK AXLES, BOILER PLATES,**

Also COG WHEELS, and other CASTINGS.

This company is prepared to furnish the above-mentioned articles in CAST STEEL of a very superior quality, made principally from their own well-known "BOWLING IRON."

Also BOWLING WROUGHT-IRON SOLID WELDLESS TYRES, of any size and to any section.

**LANCHESTER COMMON.**

**HAMSTEEL'S COMMON AND USHAW MOOR ROYALTIES.**

OFFERS for the above, in three separate takes, will be RECEIVED by Mr. JOHN TAYLOR, EARSIDON, not later than TUESDAY, the 13th Nov. next. Plans and particulars may be seen on application to Messrs. LEADBITTER, Solicitors, Westgate-street, Newcastle-on-Tyne. Earsdon, Newcastle, Oct. 25, 1866.

**ANALYSES OF COAL, CANNEL, MINERAL OILS, and all OIL PRODUCING MINERALS are UNDERTAKEN by**  
**A. NORMAN TATE, F.R.S.E., &c.,**  
ANALYTICAL and CONSULTING CHEMIST, and CHEMICAL ENGINEER  
(Author of "Petroleum and its Products," &c.),  
MOLD, NORTH WALES.

Plans and estimates for oil and chemical works prepared, and their erection superintended.  
Assays of metals and their ores carefully conducted.

**Swan Rope Works.**

**GARNOCK, BIBBY, AND CO.,**  
CHAPEL STREET, LIVERPOOL.  
MANUFACTURERS OF FLAT and ROUND HEMP and IRON and STEEL WIRE ROPES for MINING, RAILWAY, and SHIPPING PURPOSES.  
MANILLA ROPE of SUPERIOR QUALITY, FIFTY PER CENT. STRONGER and THIRTY PER CENT. CHEAPER than Russian hemp rope.  
WIRE ROPE of FIRST QUALITY WIRE, and the HIGHEST STANDARD of STRENGTH.

**Patent Flat and Round Wire and Hemp Ropes, &c.**

**JOHN AND EDWIN WRIGHT, PATENTEES,**  
CITY OFFICE, 19, LONDON STREET, E.C.  
ESTABLISHED 1770.

Manufacturers of every description of

IMPROVED PATENT FLAT and ROUND WIRE ROPES,

From the very best quality of charcoal iron and steel wire.

PATENT FLAT and ROUND HEMP ROPES.

SHIPS' RIGGING, SIGNAL and FENCING STRAND, LIGHTNING CONDUCTORS, STEAM PLOUGH ROPES (made from Webster and Horsfall's patent steel), WIRE, HEMP, FLAX,

ENGINE YARN, COTTON WASTE, &c.

UNIVERSE WORKS, MILLWALL, POPLAR, LONDON.

UNIVERSE WORKS, GARRISON STREET, BIRMINGHAM.

**NICHOLLS, MATHEWS, AND CO., ENGINEERS,**  
BEDFORD IRONWORKS, TAVISTOCK.  
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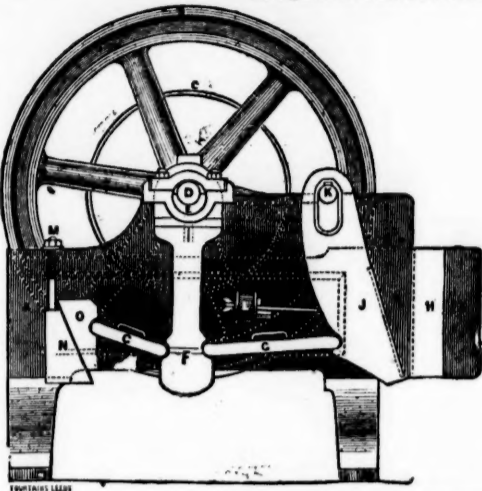
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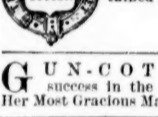


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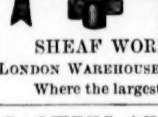
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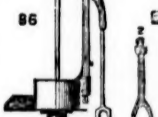
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Shares.	Mines.	Paid.	Last Pr.	Business.	Total dis.	Per share.	Last paid.
1500	Alderley Edge, c. Cheshire*	10 0 0	—	—	8 7 8	0 10 0	Aug. 1866
200	Bottlebeck, c. St. Just	91 5 0	—	—	488 15 0	5 0 0	May, 1866
10000	British Slate Company	9 0 0	—	—	9 per cent.	—	Sept. 1866
1000	Brynmawr, c. Cardigan*	12 0 0	—	—	8 7 0	0 6 0	Aug. 1866
6400	Cashwell, c. Cumberland*	2 10 0	—	—	0 1 6	0 1 6	Aug. 1866
916	Cargill, s. Newlyn	15 5 7	—	—	13 15 0	1 0 0	Feb. 1866
800	Cwm Erwin, c. Cardiganshire*	7 10 0	20	18 20	21 18 0	1 0 0	Oct. 1866
128	Cwmystwith, c. Cardiganshire	60 0 0	—	—	367 10 0	5 0 0	Oct. 1866
280	Derwent Mines, s. Durham	300 0 0	—	—	167 0 0	5 0 0	Oct. 1866
1024	Devon Gt. Consols, c. Tavistock*	1 0 0	445	430 450	1036 0 0	6 0 0	Sept. 1866
358	Dolcoath, c. Camborne	128 17 6	330	—	816 10 0	2 0 0	Oct. 1866
6144	East Caradon, c. St. Cleer	2 14 6	6	53 6 1	14 5 6	0 2 6	July, 1866
300	East Darnley, c. Cardiganshire	32 0 0	—	—	119 10 0	0 4 0	June, 1866
128	East Pool, c. Pool, Illogan	24 5 0	400	—	384 10 0	5 0 0	Sept. 1866
5000	East Rosewarne, c. t. Gwinnar	2 15 0	—	—	0 10 6	0 1 6	Jan. 1866
1906	East Wheal Lovell, t. Wendron	3 9 0	13	11 12	2 7 6	0 7 6	May, 1866
2800	Foxdale, t. Isle of Man*	25 0 0	—	—	69 0 0	0 10 0	Oct. 1866
3000	Frank Mills, t. Christow	3 18 6	—	—	3 5 6	0 5 0	Feb. 1866
15000	Great Laxey, t. Isle of Man*	4 0 0	18 1/2	18 19	5 5 0	0 10 0	Sept. 1866
5908	Great Wheal Vor, t. c. Helston*	40 0 0	19	16 17	10 10 0	0 10 0	Sept. 1866
1024	Herodsfoot, t. near Liskeard*	8 10 0	32	30 31	329 0 0	1 10 0	Oct. 1866
6000	Hingston Down, c. t.	5 10 6	—	—	0 10 0	0 5 0	April, 1866
400	Lisburne, c. Cardiganshire, Wales	18 15 0	—	—	476 0 0	3 0 0	Sept. 1866
9000	Marke Valley, c. Caradon	4 10 6	4 1/2	4 4 1/2	3 9 0	0 2 0	Oct. 1866
3000	Minera Boundary, t. Wrexham*	1 0 0	—	—	0 13 0	0 3 0	Mar. 1866
1800	Minera Mining Co. t. Wrexham*	25 0 0	—	—	205 8 0	3 0 0	Nov. 1866
40000	Mynyddir, t. Penryn*	3 5 0	—	—	0 6 6	0 2 6	Mar. 1866
600	Pant-y-Glen, s. t. c. Liskeard*	50 0 0	—	—	157 0 0	5 0 0	May, 1866
200	Parys Mines, c. Anglesey*	50 0 0	—	—	81 7 6	0 10 0	Aug. 1866
1120	Providence, t. Uny Lelant*	10 6 7	22	20 25	534 10 0	5 0 0	Sept. 1866
512	South Caradon, c. St. Cleer	1 5 0	330	300 330	0 5 6	0 2 6	June, 1866
3000	South Darnley, t. c.	3 6 6	2	1 1/2	18 6 0	0 5 0	Oct. 1866
6000	Tincroft, c. t. Pool, Illogan*	9 0 0	9	8 1/2	18 6 0	0 5 0	Oct. 1866
3000	W. Chiverton, t. Perranzabuloe*	47 10 0	60	58 60	13 7 6	2 0 0	Aug. 1866
400	West Wheal Seton, c. Camborne*	5 2 6	75 1/2	132 1/2	467 14 0	2 10 0	Oct. 1866
512	Wheal Basset, c. Illogan*	2 0 0	—	—	309 0 0	1 0 0	Mar. 1866
1024	Wheal Friendship, c. Devon	20 0 0	—	—	2 19 0	0 1 6	May, 1866
4205	Wheal Kitty, t. St. Agnes*	5 4 6	—	—	1 0 0	0 10 0	Feb. 1866
2000	Wheal Rose, c. Scorrier*	—	—	—	231 15 0	5 0 0	Oct. 1866
346	Wheal Seton, t. c. Camborne	58 10 0	150	140 145	54 0 6	0 8 0	June, 1866
1404	Wheal Trelawny, s. t. Liskeard*	5 17 0	8	7 8	16 9 0	0 18 0	Oct. 1866
17000	Wicklow, c. t. Wicklow	2 10 0	—	—	22 1/2	23	—

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1200	Bryn Gwyn, t. Mold*	9 0 0	—	—	3 8 6	0 13 6	Aug. 1865
2800	Clifford Amalgamated, c. Gwyn*	31 10 0	—	—	33 6 0	0 10 0	June, 1865
1055	Craddock Moor, c. St. Cleer	10 18 0	—	—	0 5 0	0 5 0	June, 1865
6000	East Carn Brea, c. Redruth*	3 15 0	2 1/2	2 1/2	19 18 0	0 16 1	July, 1865
20000	Miner Co. of Ireland, c. t. c.	7 0 0	—	—	0 13 0	0 2 0	Oct. 1865
6000	New Birch Tor and Vitrifer Cons. t.	1 6 6	—	—	26 14 0	0 5 0	July, 1865
6000	West Basset, c. Illogan*	1 10 0	—	—	0 2 6	0 2 6	Oct. 1865
1024	Wheal Exmouth, t. Christow	—	—	—	59 17 6	0 10 0	Mar. 1865
1024	Wheal Mary Ann, t. Menheniot*	8 0 0	—	—	—	—	—

## FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total dis.	Per share.	Last paid.
5000	Cape Copper Mining**	7 0 0	8 1/2	8 1/2	2 12 6	0 10 0	April, 1865
21500	East Indian Coal, Calcutta	10 0 0	—	—	1 5 4	0 2 0	Oct. 1865
10000	Fortuna, t. Spain*	20 0 0	—	—	22 7 6	1 0 0	June, 1865
25000	Gen. Mining Assoc. t. Spain*	20 0 0	—	—	7 1/2	per cent. per annum.	—
10000	Gousses, t. Spain*	3 0 0	—	—	11 6 4	0 5 0	Jan. 1865
29275	New Wildberg, t. c.	2 0 0	—	—	0 12 0	0 2 0	Aug. 1865
10000	Pannellville, c. t.	3 0 0	—	—	10 per cent.	—	Yearly
5000	Pontgibaud, s. France*	20 0 0	—	—	2 19 8	0 16 8	Dec. 1865
27500	Port Phillip, t. c. t.	1 0 0	—	—	0 15 6	0 1 0	July, 1865
10000	Scottish Australian Mining Co. t.	1 0 0	—	—	0 1 0	0 9 0	May, 1865
51000	St. John del Rey, Brazil*	15 0 0	—	—	68 15 0	4 0 0	June, 1865
40000	Victoria (London) [25000 £1 pd., 25000 £2 pd.]	1 0 0	—	—	0 9 0	0 1 0	Jan. 1866
10000	West Canada Mining Company*	1 0 0	—	—	0 19 6	0 2 6	May, 1866

## FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total dis.	Per share.	Last paid.
10000	Alten and Quenangen United, c.	4 10 0	—	—	4 5 0	0 15 0	Nov. 1865
20000	Australian, c. South Australia*	7 7 6	—	—	0 2 0	0 1 0	June, 1865
2404	Burra Burra, c. South Australia	5 0 0	—	—	325 0 0	5 0 0	Dec. 1864
12000	Cobra Copper Company, c. Cuba*	40 10 6	1 1/2	2 3	101 0 0	1 0 0	Jan. 1865
10000	Copiapu Mining Company, Chile*	16 0 0	—	—	6 18 0	0 10 0	Nov. 1862
10000	Don Pedro No. del Rey, Brazil*	6 11 0	—	—	0 9 9	0 9 9	Dec. 1865
70000	English and Australian, c. t.	2 10 0	—	—	1 12 0	0 0 0	Aug. 1865
60000	Kapunda Mining Co. Australia*	1 0 0	—	—	0 12 0	0 1 0	June, 1864
10000	Lusitania (Portugal)*	2 10 0	—	—	1 7 0	0 3 0	June, 1865
10815	Marquette and New Granada*	1 0 0	—	—	0 9 6	0 1 6	July, 1859
48174	United Mexican, s. Mexico	28 5 0	2 1/2	1 1/2	2 19 0	0 5 0	Sept. 1864
10000	Yamoucou, c. t.	5 0 0	—	—	0 15 0	0 5 0	Nov. 1864
45000	Yudamutana, c. S. A.*	3 0 0	1	1 1/2	0 5 0	0 5 0	Aug. 1863

## NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Business.	Total dis.	Per share.	Last paid.
45000	Alamillos, t. Spain*	2 0 0	—	—	14 1/2	1 1/2	—
100000	Anglo-Brazilian, c. t.	0 9 0	—	—	—	—	—
40000	Britannia Silver-Led Mines, France* [15750 £1 pd.]	—	—	—	—	—	—
25000	Capula, c. Mexico*	1 12 0	—	—	1 1/2	1 1/2	—
10000	Chontales, c. t. Nicaragua*	4 0 0	—	—	3 1/2	2 1/2	—
10000	Compañia Smeiting, Chile*	—	—	—	—	—	—
400	Copper Mines* Co. of South Australia* [150 £100 pd.]	150 470	—	—	—	—	—
20000	East del Rey, c. Brazil*	2 15 0	—	—	—	—	—
15000	El Chico Silver Mining and Reduction Company*	4 10 0	—	—	—	—	—
8000	English and Canadian Mining Company*	5 0 0	—	—	—	—	—
50000	Frontino and Bolivia, c. New Granada*	1 10 6	—	—	1 1/2	75 98	—
80000	Great Northern, c. South Australia*	1 11 6	—	—	—	—	—
10000	Great River Land, Mining, c. New Zealand*	5 0 0	—	—	—	—	—
12000	Noranda Coal and Iron* [5000 £5 pd., 3000 £2 pd.]	—	—	—	—	—	—
5000	Nova Scotia Land and Gold*	1 15 0	—	—	—	—	—
15000	Orea, c. New Zealand* [5000 fully paid]	1 10 0	—	—	—	—	—
4000	Petal River Land and Mineral*	100 0 0	—	—	—	—	—
30000	Pestarena, c. Venezuela*	2 0 0	—	—	2 1/2	1 1/2	—
10000	Quebrada, c. Venezuela*	10 0 0	—	—	1 1/2	1 1/2	—
10178	Rhenish Consolidated, t. [5000 £5 pd., 4178 £2 pd.]	—	—	—	—	—	—
5000	Rosa Grande, c. Brazil*	0 7 6	—	—	—	—	—
15000	San Pedro del Monte, c. Mexico*	3 0 0	—	—	—	—	—
10000	San Roque, t. Spain	5 0 0	—	—	—	—	—
1000	Schlossberg Colliery*	10 0 0	—	—	10	—	—
20000	Val Antioquia, c. t.	0 15 0	—	—	—	—	—
6000	Val Sassam, c. t.	5 10 0	—	—	1 1/2	1 1/2	—
5000	Valderrama, c. Italy	20 0 0	—	—	—	—	—
25000	Vallandusea, c. Mining	0 15 0	—	—	—	—	—
45000	Victor Emanuel, c. Italy*	1 0 0	—	—	—	—	—
20000	Washoe, c. [5000 £5 pd., 15000 £2 pd.]	—	—	—	—	—	—
8000	Worthing, c. South Australia*	1 0 0	—	—	1 1/2	2 1/2	—
7500	York Peninsula, South Australia	1 0 0	—	—	—	—	—

## BANKS AND FINANCIAL COMPANIES.

Shares.	Banks.	Paid.	Last Pr.	Bus. done.
40000	Alliance**	25 0 0	20 1/2	18 1/2
40000	Australian Mort. Land and Finance†	5 0 0	5 1/2	—
50000	Australasian†	40 0 0	—	63 65
10000	Bank of Egypt*	25 0 0	30	28 30
10000	Bank of New Zealand†	10 0 0	18	17 19
25000	Bank of Otago*	10 0 0	7	4 6
25000	Bank of Queensland*	25 0 0	—	5 10
50000	Bank of Victoria, Australia*	25 0 0	—	37 39
50000	Brazilian and Portuguese**	16 0 0	9	8 1/2 9 1/2
8012	Canada Company†	32 10 0	80	75 80
50000	Canadian Loan and Investment*	2 10 0	1 1/2	—
40000	Char. Bank India, Aust. & China†	20 0 0	18	17 18
50000	Char. Merc. India, Lond. & China†	25 0 0	37	34 36
50000	Colonial†	25 0 0	17	15 16
50000	Colonial†	25 0 0	40	35 37
50000	Company of African Merchants.**	3 0 0	3	2 3
150000	Consolidated Bank**	4 0 0	5 1/2	—
200000	Credit Foncier and Mobilier of England*†	8 0 0	4 1/2	5 1/2
10000	Discount Corporation**	20 0 0	—	—
20000	East London*	5 0 0	3 1/2	3 4
20000	English, Scottish, & Aust. Chart.*	20 0 0	14	16 1/2 17 1/2
20000	English and Swedish**	20 0 0	14	13 15
250000	General Credit and Finance of London*†.	6 0 0	4 1/2	3 1/2 3 3/2
20000	Imperial Bank**	20 0 0	25	22 24
150000	International Financial Society**	5 0 0	3 1/2	3 3 1/2
300000	International Land Credit**	6 0 0	3 1/2	1 1/2 2 1/2
4000	London African Trading**	10 0 0	—	—
50000	London Char. Bank of Australia*	20 0 0	23 1/2	21 1/2 22 1/2
87500	London and County*	20 0 0	64	61 63
40000	London Financial Association*†.	25 0 0	11	8 8 1/2
72000	London Joint-Stock*	15 0 0	44	41 43
5000	London Mercantile Discount**	10 0 0	—	—
10000	London and South-Western*	20 0 0	18	17 18
20000	London and Westminster*	20 0 0	93	95 95
50000	Mercantile and Exchange**	11 0 0	—	—
17150	Metropolitan and Provincial*†.	20 0 0	—	10 11
50000	Mineral Rights Association*	1 0 0	—	—
200000	National of Australia†	4 0 0	6	5 6
100000	National of Liverpool†	10 0 0	13	11 13
20000	National of Scotland*	20 0 0	72	67 69
87500	New South Wales*	20 0 0	46	44 46
50000	Union of Australia†	25 0 0	48	—
800000	Union of London†	15 0 0	46	—